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EDITED BY

STEPHEN SMITH, M.D.

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ELISHA HARRIS, M.D., AND GEO. F. SHRADY, M.D

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REPORTS FROM THE FOLLOWING HOSPITALS AND SOCIETIES HAVE APPEARED IN THIS VOLUME.

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 UNIVERSITY MEDICAL COLLEGE, N. Y.</p> |
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Original Lectures.

LECTURES ON STRICTURE OF THE URETHRA, PRELIMINARY TO THE CLINICAL COURSE ON DISEASE OF THE GENITO- URINARY ORGANS. DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE.

BY
W. H. VAN BUREN, M.D.,

PROFESSOR OF ANATOMY, ETC.

LECTURE VI.

If a case of stricture should present itself, in which, in consequence of the existence of false passages, or temporary aggravation from inflammation, or extreme contraction, induration, or tortuosity, you are unable to introduce an instrument into the bladder, what course is then to be pursued? Is treatment by dilatation to be attempted here? I would answer, yes; as long as the patient can empty his bladder without assistance it is your duty to attempt dilatation. The case is one of increased difficulty and danger, and success may not ultimately crown your efforts; but by bringing to bear upon it all the resources of your art, and by the employment of the requisite amount of tact, gentleness, and intelligent perseverance, in the great majority of cases you will succeed. Keep in view the idea that where urine can escape, an instrument ought also to pass, and, sooner or later, in all probability, it will. Some years ago I assumed the responsibility of the case of a gentleman, past middle age, who had been under treatment for ten years by various surgeons, with impassable stricture, and liable to frequent attacks of retention of urine, and who had positively refused to submit to an operation. For a period of six months I persevered regularly and steadily before I succeeded in introducing an instrument into his bladder, but in six weeks after attaining this success my patient was able to introduce for himself Nos. 11 and 12 steel sounds with very slight difficulty, and these he subsequently employed for several years, in the enjoyment of very comfortable health. What are the means to be used in such a case? In the first place you must secure entire control of your patient. Confine him to his room, in warm air, and if necessary, to his bed. Insist upon regular, unirritating diet, and if possible, cut off all alcoholic stimulants. Moderate local inflammation by the application of leeches to the perineum, the use of warm baths, and dilute mustard poultices to the hypogastrium nightly. Give diluents freely in the shape of flaxseed tea, or other mucilaginous drinks, and administer from ℥j. to 3 ss. of bi-carbonate of potass three times in twenty-four hours, unless a microscopical examination of the urine should indicate other and more appropriate medication. And here let me remark that the use of alkalies is not contra-indicated because the urine, as voided, may be alkaline; it frequently possesses its normal acidity as transmitted from the kidneys to the bladder, but is rendered alkaline by altered mucus of an inflamed bladder. So much for medicinal means, and they will facilitate greatly the success of your instrumental manipulations. These should be employed at judiciously selected intervals, every two or three days, or longer, according to the degree of tolerance of the urethra. As the instruments to be selected for the treatment of such a case let me recommend, again, the very fine French flexible bougies with a tapering point, from No. 1, of the ordinary scale, downwards. Inject the urethra with warm olive oil before introducing them, and give a spiral twist, as recommended by Leroy d'Etiolles, or an S-shaped bend, to the extremity of the bougie, so that by rotating it between the fingers as you repeatedly and perseveringly withdraw and re-apply it to the face of the stricture, its point will be more likely to enter the opening

through which the urine escapes. Be very careful, especially at first, not to prolong your attempts injudiciously; and if unsuccessful, finish by passing a steel sound of good size down to the stricture, and pressing its point very gently against it for a few seconds. If the tapering point of the bougie should enter the stricture and be grasped by it, leave it there for five minutes, and consider that you have gained enough for one visit; at the next you will probably recognise the advantage thus secured. Should your patient be very irritable it may be advisable to insert an opium suppository into the rectum, and this should consist of from one to three grains of the watery extract, with butter of cacao.

The principal danger to be anticipated, whilst pursuing this plan of treatment, is the liability of bringing on an attack of retention of urine before you have secured the power of introducing an instrument at will; and you cannot be too careful to avoid this by extreme gentleness and circumspection, otherwise the necessity of an immediate resort to operation by cutting instruments may be precipitated. Of the measures to be employed in case of retention, and of some other devices to be brought to bear upon an obstinate stricture, I shall speak hereafter. Meanwhile, let me commend to your considerate judgment the means—both medicinal and surgical—which I have just enumerated; by their deliberate and judicious employment you have it in your power to effect a cure in strictures of the most serious character, and they are applicable to the great majority of cases you will meet in practice. Above all, do not permit your patient to undervalue the gravity of his symptoms, and do not commence systematic treatment without fair control over him, otherwise you place yourself in a false position, and risk disappointment, and loss of reputation.

In cases of stricture in which much difficulty and delay have been experienced in getting an instrument into the bladder, and where there is doubt as to the possibility of its re-introduction without additional delay, it is proper, unless contra-indications exist, to leave the instrument in the bladder, and follow out the plan, as already described, of so-called *vital dilatation*. In most cases the urine will pass readily beside a fine bougie thus left in the bladder; and probably in a few days a catheter may be substituted for it. I have succeeded, in cases of this description—where the difficulty of getting a bougie into the bladder has arisen from the presence of false passages, rather than from tightness of the stricture—by cutting off the closed end of a flexible catheter, and passing it over the bougie, using this latter as a guide. To effect this manoeuvre readily, the cut end of the catheter should be smoothly rounded, and a strong ligature, previously attached to the bougie, should be passed through the whole length of the catheter. This is the idea, in accordance with which Mr. Wakley, of London, proposes to effect the rapid dilatation of urethral strictures by means of the instruments which bear his name.

It sometimes happens that a serious obstacle exists to the treatment of a stricture by the dilating process, in the shape of extreme sensibility, or irritability, of the urethra—rendering ordinary manipulation excessively painful to the patient, or liable to be followed by retention of urine. This is the only complication of stricture in which the use of caustics is considered admissible in modern surgical practice, and even here I cannot recommend their use, inasmuch as I am satisfied that the judicious employment of anæsthetic agents will enable us entirely and advantageously to dispense with them.

In a case of this kind I would advise you to pursue the following course:—Confine your patient to his room for a week, and employ such medicinal remedies, already indicated, as are calculated to moderate the excessive sensibility of the urethra; at the end of this time place him under the influence of ether, and gently and patiently endeavor to lodge a fine bougie, or catheter, in the bladder, and, if you succeed, leave it there; in case of failure, which will rarely

happen, except where an operation would in any event have been inevitable, and if retention should follow, treat the ease in accordance with the rules to be laid down hereafter for the management of retention of urine.

Let I should appear dogmatic in dismissing thus curtly the use of caustics as a remedy for stricture, a mode of treatment formerly much employed and advocated by high authority, I will say a few words as to the manner of applying them. A minute fragment of fused nitrate of silver, or of *potassa fusa*, is imbedded in the extremity of an old-fashioned wax bougie—like these before you, which were brought from London fifty years ago—this is passed rapidly down the stricture, and pressed upon its face for a few seconds, and then withdrawn. A peculiar solvent and modifying power is claimed to be exerted upon the stricture by the application, by which sensitive strictures are rendered passive, and impassable ones by repeated trials are overcome.

Sir Everard Home alludes to a ease in which he performed this operation considerably over a thousand times—and yet the patient was not cured. It may be admitted that nitrate of silver, judiciously employed, might diminish the morbid sensibility of a part, but beyond this it could only act as an escharotic; and caustic potash in the latter mode is still more powerful, thus endangering the production of eschars, or sloughs, which no skill could confine to the diseased tissues of a stricture, and the separation of which would be followed by contraction—amounting to a traumatic stricture. If the armed bougie does not act in this way, it simply causes absorption as a dilating instrument. Now, anesthesia is a safe resource in morbid sensibility; and the danger of causing loss of tissue, and inevitable subsequent cicatricial contraction, more than counterbalances the advantages claimed for the caustic treatment.

With regard to the treatment of stricture by the use of cutting instruments, it may be stated in a general way that they are required in two phases of the disease: 1st, where dilatation, judiciously employed, has proved ineffectual in restoring a normal degree of softness and extensibility of the urethral walls; 2d, where a stricture cannot be passed by a catheter or bougie, either for want of time, the urine requiring a prompt outlet, or from absolute impermeability.

In the first category of cases, strictures seated in the spongy division of the urethra, which do not readily yield to dilatation, or which, when dilated, rapidly and constantly recontract, are properly and advantageously treated by *incision from within*, by means of any of the numerous instruments devised for this purpose, specimens of which are before you. In this operation it is to be understood that the stricture is sufficiently dilatible to allow an instrument of some size (say from 5 to 8) to traverse it; and that the concealed blades which start out, thus, from the smooth shaft of the instrument, are to be applied in such a manner as to divide or scarify the stricture, by incising it from *behind, forwards*, or, in other words, as they are being withdrawn from the urethra. If a stricture is thus freely divided throughout its whole length, and in depth according to the amount of induration which its walls present, by one or more incisions, and if a catheter of full size be retained in the canal for forty-eight hours, so as to maintain the edges of the incisions fully separated, experience has taught us that, in the large majority of instances, it will be ever after amenable to simple dilatation, and also, that the operation thus performed is neither difficult nor dangerous, in competent hands. The most obvious casualty is hemorrhage, which is controllable by the pressure exerted by the full-sized catheter. The mode in which this operation does good is best illustrated by reference to the somewhat analogous operation of tenotomy for club-foot. In either case, the material by which the edges of the wound are united is much more extensible than the harder tissue in which the wound is made. The newly organized connecting tissue, by which the ends of the divided tendon are united, is readily stretched so as to allow the foot to be restored to its normal position; and, in a like manner, the splittings of new tissue, thus inserted in the indurated walls of the con-

tracted urethra, render it susceptible of dilatation, whilst, previous to division, neither tendon, nor indurated tissue of stricture, could have been successfully elongated.

This operation of *internal incision* is, in my judgment, safely applicable only to strictures situated in the spongy portion of the canal, anterior to its curve, or, in other words, where a straight instrument can be used; and here it is a resource of undoubted value, rendering obstinate and sensitive strictures entirely amenable to the simplest means of dilatation, and often leaving them with very slight disposition to recontract.

For strictures situated in the curved portion of the urethra, which resist full dilatation, and manifest an obstinate tendency to recontraction, the appropriate treatment is careful and thorough division by the knife, from without, upon a grooved staff previously introduced through the stricture—the operation, in short, devised and recommended by Mr. Syme, of Edinburgh. Here the stricture and all the tissues intervening, as well as the external integument, are incised, and a full-sized catheter passed at once into the bladder, where it is to be retained for two days. The results of this operation, as announced by the distinguished surgeon who introduced it, are highly favorable, and his experience of its utility has been amply confirmed by others. For its details I must refer you to your surgical text-books.

The operation of *internal incision*, as applied to strictures in the anterior portion of the canal which are not sufficiently dilated to admit the passage of a cutting instrument, is much less satisfactory, both in its performance and in its results. There is danger as well as uncertainty in thrusting a cutting blade forward into the substance of a stricture, even though it be guided by a grooved beak or director, as in these urethrotomes of Civiale and Ricord; and they should only be employed after a most thorough and careful exploration and study of the ground. There are very few strictures which cannot be sufficiently dilated by the skillful use of tapering flexible bougies, so as to allow the urethrotome to be passed beyond them, when its use is required; and these we shall consider hereafter.

Original Communications.

MORBUS COXARIUS—ITS TREATMENT, AS PRACTISED BY LEWIS A. SAYRE, M.D.

BY WM. K. CLEVELAND, M.D.

As many physicians located in the country have expressed a strong desire to learn something more definite in regard to the treatment of morbus coxarius, as devised and practised by Dr. Sayre, of this city, I herewith submit a brief synopsis of that treatment; but I would at the same time refer them to the forthcoming elaborate report, prepared by Dr. S., and read by him before the *American Medical Association*, at its last session in June, 1860, at New Haven, Ct.

Dr. S. discards completely the long-advocated and popular notion that morbus coxarius is of *necessity* connected with tubercular degeneration of the joint, and regards it strictly as a local difficulty, and treats it as such. The unparalleled success attending this recently adopted mode of treatment is beyond a doubt attributable to this view of the subject. But if the patient be laboring under a depraved and vitiated condition of system, constitutional remedies are of course employed for the removal of this condition. Morbus coxarius is invariably preceded by inflammatory action within and around the joint, which inflammation is traceable, however obscurely, to some traumatic origin. For a more complete description than my present space will allow, of the varied results of this synovitis, or periostitis, and the appearance the limb presents in the

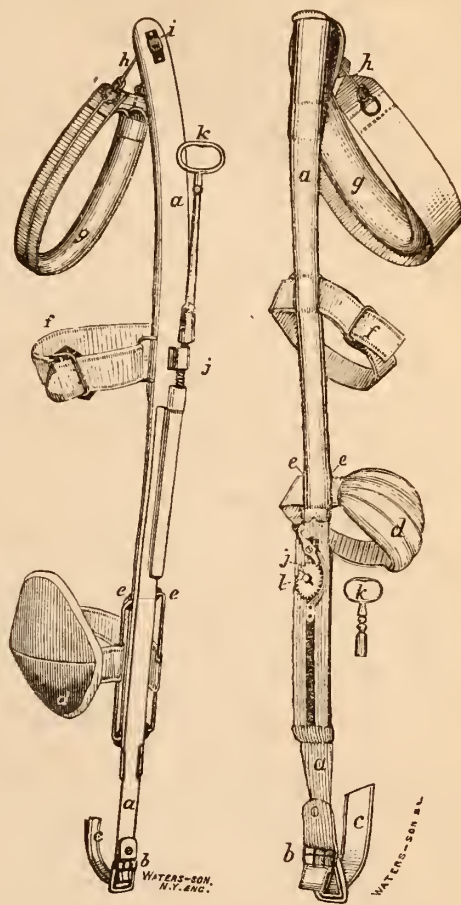
several stages of the disease, the reader is again referred to Dr. S.'s report, in which the entire matter is freely and lucidly explained. The great object aimed at in Dr. S.'s treatment is that which is indicated in every variety of articular inflammation, viz. rest, and the removal of the cause of irritation. This object is effected in various ways, the treatment being adapted to the particular stage of the disease.

In the great majority of incipient cases of morbus coxarius, which stage of the disease is not characterized by any very marked malposition of the limb, as well as, in very many cases advanced to the second stage, which is characterized by depression of the pelvis of the affected side, with eversion and *apparent* elongation of the limb, all that is necessary to effect a perfect cure is the use of Dr. S.'s splint for hip disease, which is presently to be described, together with its mode of application. If, however, the effusion that always occurs within the capsular ligament in the second stage of the disease, is excessive and persistent under the application of leeches, iodine, cold, etc., as is too often the case, the joint must be opened, either by puncture with the trocar, or by free incision. And this operation is more imperatively demanded if the effusion is suspected to be of a puriform character. In addition to this, the tendons of all firmly contracted muscles are divided subcutaneously. The second stage of the disease is marked by the most exquisite sensibility. Pressure upon the trochanter major, or at any point that will bring the caput femoris forcibly against the acetabulum, produces extreme suffering, which suffering is again instantly relieved by removing the pressure from the joint. The third stage of the disease is recognised by its presenting symptoms diametrically opposite to those of the second stage. The pelvis on the diseased side is unnaturally elevated, sometimes normal; the thigh is flexed upon the pelvis, and the limb, instead of being *everted* and abducted, as in the second stage, is *inverted* and adducted, and there is comparative freedom from pain. The operations required in this stage of the disease consist in the division of the contracted muscles, the breaking up of bony ankylosis, if any exist, and in extreme cases the resection of the head of the femur, together with, in some cases, the neck, trochanter major, and a portion of the shaft of the bone, as well as all necrosed or carious portions of the acetabulum.

But to be more explicit, the method of treatment employed in the different stages of the disease is as follows:

Treatment in the First Stage.—Two straps of strong adhesive plaster, cut slightly—tapering from above downwards, broad enough to almost envelop the limb, and of sufficient length to extend from two or three inches below the trochanter, to within as many inches of the malleoli, are placed along the internal and external aspect of the limb. To the inferior extremities of these lateral straps are attached two pieces of strong webbing, an inch wide, and long enough to be united a few inches below the foot. These straps are carefully adjusted to the part, and secured by the application of two or three narrower straps, carried spirally around the limb, and a roller extending from the toes to the pelvis. The webbing is not to be confined by the circular straps, nor by the bandage, but left free, for the attachment of the splint during the day, and counter-extension during the night. The leg being dressed in this manner, is allowed to remain undisturbed for a few hours, in order that the plaster may become firmly adherent to the skin. After which Dr. S.'s splint is applied. The splint is manufactured by Messrs. Ford and Wade, No. 85 Fulton street, and consists of two narrow bars of steel, that play upon each other at the knee in such a manner as to permit of shortening and extension, which is graduated at pleasure by means of a ratchet or screw worked by a key. The instrument extends from the crest of the ilium to within a couple of inches of the external malleolus, and is so constructed as to accommodate itself to the curvatures of the limb. A perineal band of firm rubber tubing is connected with the upper extremity of the instrument by means of a

strong catgut, which works through a pulley, which pulley is sustained at the superior extremity of the instrument by a ball-and-socket joint. At a point corresponding with the knee is placed a knee-cap, which assists in securing the instrument firmly to the limb. At the inferior extremity



NOTE.—a, bar of steel; j, l, ratchet; k, key; g, perineal band; h, catgut; i, ball and socket joint; d, knee-cap; f, femoral band; b, pulley and buckle; c, webbing; e, e, wires giving attachment to knee-cap.

are attached a small pulley and buckle. The instrument thus briefly described is the splint used by Dr. S., the employment of which has been attended by more favorable results than that of all other instruments combined in the treatment of this hitherto formidable disease. The splint is applied in the following manner:—The perineal band being carried well into the groin is secured by means of the catgut to the small pulley at the upper extremity of the splint, the knee-cap is buckled snugly over the knee, and the webbing connected to the external adhesive strap passed over the small pulley, and secured by the buckle, mentioned above. The splint being thus adjusted, extension is readily effected by means of the ratchet or screw. In this manner all contact between the inflamed articular surfaces is prevented, while the motion of the joint is unaffected. The weight of the body is removed from the joint, and transferred to the limb below.

The splint is worn, as a general thing, during the day only; but in order that the joint may have the benefit of continuous extension, the following treatment is substituted during the night:—The splint being removed, the two pieces of webbing are united below the foot. To this webbing a cord is attached, which, passing over a pulley at the foot of the bed, is connected to a weight, from four to eight pounds, which it suspends, and which acts as the extending, while

the patient's body acts as the counter-extending force. Should the extending force require to be considerable, and more than the body of the child can successfully oppose, the foot of the bed is elevated to any desired angle, thereby adding the force of gravitation to the already existing counter-extending force. All irritation being thus effectually removed from the joint, an opportunity is afforded for a return to its healthy condition, which usually takes place in the course of a few months.

Treatment in the Second Stage.—This consists in effecting the reabsorption of the effusion within the joint by medicinal agents, if possible, and in overcoming by means of the weight and pulley, the resistance of the contracted muscles. But if these objects cannot thus be effected, the tendons of the contracted muscles are divided subcutaneously, when at once the limb may be made to assume its normal position, except in cases of extraordinary effusion, when it becomes essentially necessary to puncture the joint. For the performance of this operation and its subsequent treatment, the reader is again referred to Dr. S.'s report, already mentioned. After the operation the limb is dressed in the manner already described, the patient placed in bed, and the extending weight at the foot of the bed attached to the webbing, cold water dressing is applied to the wounds, which, with rest and care, heal usually in the course of a few days, after which the patient is ready for the application of the splint.

Treatment in the Third Stage.—This is of a more complicated and serious character. It consists in making an incision about six inches in length directly over the great trochanter and in a line with the shaft of the femur, in disarticulating the head of the femur, and in removing such portions of it, as well as of the acetabula, as are found in a dead or non-viable state. In order to accomplish this not infrequently firm, bony adhesions require to be broken up. The patient is then placed, for a time, in Dr. Bauer's "wire breeches," an apparatus that combines perfect rest with extension, the two great objects desired at this stage of the treatment. The wound is filled with lint, treated with the water dressing, and allowed to granulate from the bottom. It is desirable, while the patient remains in this wire apparatus, that he be removed therefrom occasionally, in order that passive motion of the knee-joint may be made, thereby preserving its healthy tone. When all inflammatory action has subsided, and the wound is closing kindly, Dr. S.'s splint may be applied and the patient be allowed to go about. In order to set forth the results of this mode of treatment, I will give the reader the notes of two or three cases which I have recently taken.

Case 1. First Stage of the Disease.—E. F., aged 7 years, male, while sliding upon the balusters of the stairs about the first of October last, received a fall that inflicted an injury upon the right hip. The child complained at the time but little, and the matter was considered trifling. The next morning, however, the child experienced an increase of pain upon any attempt to use the limb. He evinced an unwillingness to walk about, and when he did so, would allow the ball only of the right foot to touch the floor. From this slight injury, as a starting point, the disease began at once to develop itself. The sensibility of the joint increased daily; so much so, that in the course of two weeks from the date of the injury, the little patient's health began to be seriously impaired. He slept badly at night, frequently waking and crying out with pain. The position of the limb, considering the brief time that had elapsed, was considerably affected, and afforded strong evidence that the disease was rapidly merging into the second stage. Dr. S. was called to see the patient when in this condition, two weeks subsequent to the infliction of the injury. The nature of the disease was at once determined; the child was placed in bed, the limb dressed with the adhesive straps, and the extending weight at the foot of the bed employed; leeches and cold water were also applied to the joint. This treatment was pursued two weeks, at which time the pain in the joint was so far diminished

that the use of the splint was advised. It was accordingly applied, and the patient permitted to go about. Since the day the splint was put upon the little fellow, his improvement has been rapid and continuous; and at the present date he is so far recovered that the joint admits of every variety of pressure and motion with entire impunity.

Case 2. Second Stage of the Disease.—M. L., male, aged 8 years. When five years of age, complained of pain in the right knee; the family physician regarded the symptoms as referable to what are vulgarly known as "growing pains." But the pain increasing and the case growing more aggravated, a more careful examination was made, when it was discovered that the difficulty was confined to the hip-joint exclusively, there being no lesion whatever in connexion with the knee. The child was now confined to bed, and for three months treated with rest, iodine, and friction; at the end of which time he so far recovered as to be able to walk about, not however without more or less pain and lameness, especially after any severe exercise. By constant and careful attention the child was kept in pretty much this condition until about nine months since, when, without any ascribable cause of a traumatic character, the symptoms again became intensified: so much so, that the physician in attendance recommended that the child be taken to the College of Physicians and Surgeons, in order that a more thorough investigation of the case might be had. This suggestion was acted upon by the friends, and a very careful examination was made by Prof. P., who pronounced the disease morbus coxarius, and advised that it be treated by issues. About a week after the examination, Prof. P. placed a nitric acid issue behind the trochanter major, which continued to discharge some six weeks, when it was permitted to close; cod-liver oil was also prescribed. The issue and the oil appeared to afford slight relief only. At this time Prof. P. called Dr. S. to see the child with him, and recommended the application of his splint, which was applied. On the 21st of June, the child was brought to Dr. S.'s office for the first time since the employment of the splint. The mother complained that he ran all about town, to fires, etc. The child walks in the instrument with great freedom. Of course the splint does not permit of perfect motion at the knee, and the only appearance of lameness the child now presents is owing to the restricted motion of the knee-joint. His appetite is good, and he sleeps well without any pain.

This case is rapidly progressing to a perfect cure.

Case 3.—Second Stage of the Disease—Recovery.—G. R. McD—, aged 7 years, male, came under observation, October 25, 1860. The friends state that he has generally enjoyed very good health, having been remarkably exempt from the various diseases incident to childhood. There is hereditary predisposition to phthisis on the mother's side, she having had a sister afflicted with curvature of the spine, and who died of pulmonary consumption. His mother informed me that in the beginning of January last he first complained of pain in the knee, especially at night, and that he has never complained of pain in the hip, but always referred it to the knee. The pain continued to increase, and after a few weeks the mother observed a very marked distortion of the affected limb, with partial curvature of the spine. The pelvis on the diseased side was depressed, the knee flexed, the leg abducted and apparently elongated. A physician was now called, who pronounced the disease rheumatism, and treated it with liniments and the anti-rheumatic remedies, without obtaining the slightest relief. In August last, he was seen by another physician, who, upon examination, found the disease to be connected with the hip-joint. Under this gentleman's care, he was treated with electricity and the medicated bath, but to no purpose.

On the 25th of October, the patient was brought to Dr. S., who at once discovered well marked evidence of morbus coxarius in the second stage, far advanced. On the following day the child was placed in bed under the extending force previously described, hoping thereby to remove irritation and restore the parts to their normal position with-

out resorting to the knife. But the muscles were so rigidly contracted, and had been in this condition so long, they were found to be unyielding even under a quite forcible extension. Dr. S., therefore, chloroformed the patient, divided the contracted muscles, and reduced the limb to its natural position. Extension was again applied, for which the splint was substituted in the course of a few days; and to-day the patient may be regarded, although he yet walks in the splint, as beyond the influence of the disease.

Case 4.—Third Stage of the Disease—Exsection—Recovery.
—C. M., aged 5, female, had enjoyed good health until May, 1859, when she contracted pertussis, which continued three months, and under which her general health was observed very much to suffer. In June, one month after the occurrence of the whooping-cough, she for the first time complained of pain in the left knee, and gave evidence of a slight degree of lameness. These symptoms were not referable to any *known* traumatic cause, the cause in this case being doubtless so slight and obscure as to pass unnoticed by the friends. And, as this child is evidently laboring under the strumous diathesis, we can readily conceive of a slight cause as the source of the difficulty under consideration, his previous immunity from disease notwithstanding. This condition of things continued, at times better and again worse, until November, when the symptoms became so intense and aggravated, she was necessarily confined to bed. She suffered much pain at this time in the hip as well as in the knee. Hectic fever now set in, with colliquative night sweats, followed by anorexia and emaciation. The parts about the hip were tumid, hot, and extremely sensitive. Three openings were made by the attending physician, from which pus was evacuated. The discharge was profuse, and afforded much relief. Sinuses formed in connexion with these openings that continued to discharge pus, up to the 16th of August, at which time the patient was brought to Dr. S., who found the most marked evidence of advanced hip-joint disease, the limb being drawn up and fixed in that position so characteristic of the third stage of morbus coxarius. The sinuses above mentioned were situated one behind the trochanter major, leading to the joint, the second about three inches below passing up to the joint upon the anterior aspect of the femur, and the third connecting also with the joint opened upon the inner and posterior aspect of the limb, just below the trochanter minor. The joint being thus so seriously involved, it was deemed advisable to attempt a cure by exsection. Accordingly, the child being anesthetized, the bone was exsected through the trochanter major. The entire head, together with the major part of the neck of the femur, was absorbed, and an abscess was found in the great trochanter. Portions of the acetabulum were found to be carious, and removed. A large collection of cartilaginous or semi-osseous deposit was removed from the neighborhood of the acetabulum—matter thrown out evidently with the intention to effect in time the ankylosis of the joint. The patient was now placed in the wire breeches of Dr. Bauer, a portion of them being cut away to facilitate the dressing of the wound. The night after the operation, she slept well, without an anodyne, and so continued to do. Her appetite increased, and marked evidence of general improvement at once appeared. While in this wire splint she was occasionally taken out for the benefit of out-door air. In seven weeks after the operation, the wound was closed, and the patient sent to her home in the western part of this state. Letters recently received from the parents announce that she has gone on from good to better; and that she is to-day, what their most ardent hopes, a few months since, dared not to picture.

ABNORMAL CONTRACTION OF THE MUSCULAR FIBRES OF THE UTERUS BEFORE DELIVERY OF THE FŒTUS.

By WM. HENRY CHURCH, M.D.,

SURGEON TO BELLEVUE HOSPITAL.

I WAS called to Mrs. B. on the morning of Aug. 19th, 1859, at one o'clock, whom I found in labor with her fourth child. She progressed favorably until eight o'clock A.M., after which time no further progress was made. At ten o'clock, after two or three severe pains, she was seized with a convulsion, membranes ruptured, and the os dilated to the size of a silver dollar. I was now satisfied that something should be done to relieve her. Told her sister that I must have another physician, and to send for whomsoever she chose. She said that Dr. Webb was waiting at his office to hear from her, when I requested that he might be sent for. He promptly came, and we at once determined to use forceps. Upon applying them the head could not be advanced in the slightest degree. After consultation, the patient having become partially restored to consciousness, we determined to administer chloroform and perforate. When the size of the head was reduced so that the hand could be introduced into the cavity of the uterus, a firm contraction of the muscular fibres of that organ about the neck of the child was discovered—thus retaining the body and extremities in the upper part of the womb—and it was beyond our power to draw them through the stricture; consequently we determined to bring down the feet and turn. Under ordinary circumstances every one who has performed the operation, knows how difficult it is to perform the operation of version; but in addition we here had a stricture at the middle of the uterus to contend with—a frightful complication to the ordinary operation. After two hours of hard work we succeeded in turning and delivering the child, but the patient was so far exhausted by loss of blood and the shock to the nervous system that she died in an hour.

Mrs. B. several times told me, she was satisfied beyond a doubt that she had passed the natural period two weeks, suffering frequently during the two weeks with pains simulative of labor pains.

Since writing the above, my attention has been called by Dr. Webb to page 436 vol. 1st, of Simpson's *Obstetric Works*, where he says: "The late Dr. Campbell, shortly before his death, had told him of a case where there was no pelvic or other deformity on the part of the mother, no want of uterine contraction, and no disproportionate size of the head of the child, and yet he and others had entirely failed in extracting the detained infant by the forceps, and at last were obliged to open its head." "At the same meeting Dr. Simpson observed, that sometimes in women who had previously borne a large family, a cause of obstruction might exist in a late labor, not on the part of the child, as was generally the fact, but on the part of the uterus. Last summer he saw, with Dr. Skea, a case of this kind, where the source of detention was a firm and contracted circular band of the uterus around the site of the neck of the child. A patient who had had a large family and easy labors, complained of a feeling of tightness across the lower part of the abdomen, during the last three months of her last gestation. Dilatation of the os uteri did not seem actually to begin until the patient had been suffering at least forty-eight hours from labor pains. Nor could the head be detected as the presenting part for nearly twenty-four hours longer. For several hours more, the patient continued suffering apparently from severe labor pains, during which the head descended to the brim, but never entered it. (Edema of the os uteri now showed itself, and the strength of the patient began to flag. Dr. Skea sent for Dr. Simpson, and after the patient was placed under a full dose of chloroform, the cause of obstruction was found to depend on the presence of a rigid stricture, situated in the lower third of the

uterus, upon which rested the shoulders of the fœtus. After administering 120 drops of Sol. Mur. Morphiae, and keeping her pretty deeply under the influence of chloroform for two hours, it was found that no material relaxation of the stricture had taken place, to admit of turning without endangering the integrity of the uterine walls. It was feared that ovariectomy might be ultimately necessary; but employment of the long forceps was first resolved upon, notwithstanding the unusual difficulty of applying them so high up, as necessarily to require their being locked within the vagina. Dr. Simpson, however, succeeded readily in applying them, and accomplished delivery in some fifteen or twenty minutes, by dragging the shoulders of the fœtus through the stricture."

RAPID UNION OF THE TIBIA AND FIBULA IN AN INDIVIDUAL OF NINETY YEARS OF AGE.

By JOHN G. MEACHEM, of Warsaw, N. Y.

Mrs. HIGGINS, of Middlebury, aged 90 years, fractured both bones of the left leg at the beginning of their lower third, by stepping upon an icy surface. On my visiting the patient, I found the leg bent at right angles at the seat of fracture. She was suffering considerable pain, and was greatly shocked. I administered quarter grain of morphine, and in half an hour placed the limb upon its outer side, and dressed it after the plan of Prof. Frank H. Hamilton. She was ordered good generous diet, quarter of a grain of opium twice a day, and *all the whiskey she could drink*. At my second visit, which was on the third day after (she resided seven miles from me), I found the limb of a dark-purple color for two inches above and below the seat of fracture, and two large vesicles containing very dark serum over the most superficial portion of the tibia. These I punctured to give exit to the fluid, and applied simple cerate to the abraded surface. The limb was not badly swollen, nor were the bandages at all tight.

From this time nothing unfavorable occurred, and at the end of four weeks, union was perfect. She could bear her whole weight upon the injured limb, which she several times did on the twenty-eighth day of the fracture, though without my consent or approval. My brother, Dr. Wm. G. Meachem, of this village, saw the case several times with me.

Dec. 12.

DILATATION AND SOFTENING OF HEART—RUPTURE—AUTOPSY.

[Reported by R. S. PORTS, Medical Student, Brooklyn, N. Y.]

GEN. O. H. K., æt. 56, a man of pretty active habits, and very fleshy, weighing two hundred and thirty-two pounds, had been subject to paroxysms for several years, supposed to be consequent upon indigestion. Sunday, November 25, while taking a long walk, the air being very cold, he was seized with a pain in the region of the stomach and heart, and felt faint. This soon passed off, and he remained well until after a hearty dinner, on Monday, when he was again seized with pain in the same regions. By the application of mustard externally, and the use of brandy internally, the pain again disappeared. He slept well that night; but about 7 A.M., on turning over in bed, he was again attacked by the pain, which did not leave him until his death. At 8 A.M. he was seen by my preceptor, Dr. Frank H. Hamilton. At this time his pulse was slow, soft, and regular; the skin pale, cold, and covered with a copious sweat. Dr. H. gave him, tr. opii gtts. xlv., and a ginger tea with soda. At 9 A.M. he took ten drops more of tr. opii; at 11, he was sensibly relieved, but the pain being still severe, he was ordered thirty-five drops more of tr. opii, mustard poultices being constantly kept upon his chest and stomach. At 2 P.M. he was reported to Dr. H. much relieved. At 4 P.M., while conversing with his daughter, he suddenly vomited and immediately exclaimed, "I am fainting," sank back, gasped a few times, and died.

Autopsy, by Dr. P. C. Pease.—Present: Drs. Hamilton, May, and Heuser, also, Mr. Marvin, myself, and others. Pericardium filled with dark, grumous blood, mingled with serum. Heart slightly enlarged; the walls perceptibly thinned and flabby; muscular fibres pale, with a slight tinge of straw-color; structure very soft and easily torn; considerable fat on the outside of heart near its base; near the middle of the anterior portion of the left ventricle was a rent having the appearance of an irregular indentation; the rent in muscular fibres being more extensive than the one in the serous covering; the muscular fibres being torn to the extent of one inch or more, while there were only two small openings in the serous covering, each being about the size of a goose-quill. On looking at the heart from the inside the columnæ carneæ were found torn across horizontally, or at right angles with the axis of the heart, the ends of each bundle of fibres being somewhat enlarged and bulbous, as if in the act of breaking they had recoiled upon themselves and thus increased their diameter. There was very little blood in either cavity. In all other respects the condition of the heart was normal.

Dec. 4, 1860.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Service of DR. LEWIS A. SAYRE.

TREPHINING FOR EPILEPSY—FIRST TRIAL OF GALT'S CONICAL TREPHINE.

[Reported by Erskine Mason, M.D., House Surgeon.]

On Wednesday the 12th of December, Dr. Sayre operated in a case of Epilepsy. The history of the case was as follows:—Louis Holmes, married, aged 30, born in New Jersey, by occupation a porter. Patient is of a good constitution, temperate, and has no hereditary tendency to disease. He states that twenty years ago he fell from a horse and struck upon the back of his head; this was followed by some swelling, which however soon disappeared. About three months subsequent, while riding, he was again thrown from his horse, and fell upon a fence, striking his head at the seat of the previous injury. At this time the scalp was injured; after this wound was healed there was still left a small tumor, which was exceedingly tender. He, however, states, that after a few months this tumor, together with all sensitiveness, disappeared. At the age of twelve years, he was for the first time in his life seized with a convulsion, which was referred to some impropriety of diet, and is said to have lasted two and a half hours. He had no more of these convulsions till he was twenty-one, when he was taken with a dizzy sensation, and as he describes it, a feeling like the motion of the paddle-wheels of a steamboat, commencing in his abdomen and going to his heart, when he fell and remained entirely insensible for a quarter of an hour. A month afterwards he had another attack, similar to the first, only much more severe. Since that period he has had them at variable intervals; sometimes every day, again only once in three or nine days. In all of these attacks, he is entirely insensible. His general health had always been good until November last, when these attacks became very severe: ever since, he has had a pain in his head and loss of appetite, and was compelled to give up his work. Upon examination, there is found a small hard elevation just below the occipital protuberance, and a little to the left of it. The dimensions of this eminence are about three-quarters of an inch in diameter, and in height three-eighths of an inch. The patient had always supposed this exostosis to be nothing more than a natural prominence, until a short time ago he was informed to the contrary by a physician. A few lines to the left of this excrescence there is a slight depression; whenever the

finger is pressed into this depression, there is a convulsion of the muscles of the face, and severe pain is produced in his head. Since his admission into the hospital he has had two convulsions, and is unable to gain a night's rest without an anodyne. After relating the history of the case—

Dr. SAYRE stated, that this operation was first performed in this country by Dr. Dudley of Kentucky, in the case of a medical student, who some years previous had received a blow upon the head. The doctor perceiving a slight depression, trephined over the spot, and found a slight exostosis which penetrated the brain. This case proved entirely successful. He also stated, that at the last meeting of the American Medical Association, Dr. McDowell, of St. Louis, read a paper upon this subject, and related a great number of cases of epilepsy which he had trephined with good results. He also mentioned a case which he had trephined last winter in this hospital with entire success. The button of bone which was removed, presented a small spicula upon its internal surface. He said that the instrument which he intended to use in this operation was the beautiful and scientific trephine invented by Dr. G. A. D. GALT of Virginia. This was the first time that this trephine had ever been used upon the living subject; though repeated experiments had been made upon the cadaver, all of which proved the superiority of this trephine over the one now in general use. The peculiar advantage of this trephine consists in dividing the cranial walls without any danger of wounding the membranes, or the brain, whereas with the old instrument we are in constant danger of so doing. It



consists of a truncated cone with spiral peripheral teeth, and oblique crown teeth; when applied, the peripheral teeth act as wedges so long as counteracting pressure exists on the crown teeth; upon removal, however, of that pressure, by the division of the cranial walls, its tendency is to act on the principle of a screw; but owing to its conical form, and the spiral direction of its peripheral teeth, its action ceases. In the construction of this instrument, it is important to preserve the precise relative shape of the cone given in the illustration, the size and course of the peripheral teeth being the same. Upon this condition alone depends the complete success of the instrument. The Doctor said that it had been lately examined by the surgical section of the Academy of Medicine, and in all the trials, it could not be made to injure the coverings of the brain with all the force that could be used, and was highly recommended by the surgeons present. The case now present is one well

calculated to test the merits of this instrument, as I shall trephine directly over the lateral sinus; and should this canal be wounded, we should have serious hemorrhage. These trephines are now made by Wade & Ford, the Surgical Instrument makers to the Hospital.

The patient being under the influence of chloroform, the Doctor made a conical incision through the scalp; applied the trephine; and removed a small button of bone, but without in the least injuring the membranes. This operation proved the superiority of this over other trephines, upon the living subject. Nothing peculiar was discernible upon the inner surface of the plate of bone which was removed.

LONG-ISLAND COLLEGE HOSPITAL.

FRANK H. HAMILTON, M.D., SURGEON.

THREE CASES OF BURNS TREATED WITH OIL AND COTTON BATTING.

[Reported by P. C. PEASE, M.D., Resident Surgeon.]

Case 1.—Bridget Quigley, æt. 20, was admitted July 19,

1860. The patient, about a week previous to the date, set fire to her clothing whilst kindling a fire with camphene, causing extensive burns of the skin and subcutaneous tissues upon the back, both knees, the left fore-arm, and over the abdomen. Shortly after the occurrence of the accident, the following application was made: Cotton batting saturated in sweet-oil. The patient on admission, complained of continual pain, sleeplessness, and loss of appetite. The following was ordered by Dr. Hamilton: Cotton batting saturated in liq. calcei laid over the wounds; gum opii gr. $\frac{1}{2}$ ter in die. July 20.—The patient has much less pain, using oleum olivæ in conjunction with liq. calcei. Continue the opium and allow full diet. July 26.—A very abundant discharge of cream-colored pus from the burned surfaces. The opium having been discontinued for two or three days, the patient complained of pain and restlessness, and was very feeble in consequence of the extent of the suppurating surface. R G. opii gr. $\frac{1}{2}$ at night. R Tinct. cinchonæ c 3j. ter in die. Continue application to burns. July 30.—The patient is better; lint spread with cerat. simplex applied to granulating surfaces; nourishing diet. Oct. 4.—The patient since the last date has been slowly failing. The burned surfaces upon the arm and knees are well, but those upon the back show no disposition to heal; granulations flabby, of a pale pinkish color, and depressed below the contiguous surfaces; excessive discharge of thin unhealthy pus. She maintains constantly a sitting position, the condition of the back precluding a possibility of lying upon it; and as a consequence, there are bed-sores upon both nates. Well marked phthisical symptoms have also supervened. There is marked dulness over the clavicles, and in the infra-clavicular regions of both sides, a very annoying cough, and a copious expectoration of dense viscid sputa. She is still taking a highly nutritious diet, tonics, and stimulants, and a cough mixture, as follows: R Morph. sulph. gr. $\frac{1}{2}$; antimon. tart. gr. $\frac{1}{2}$; acid. hydrocyanic. (U. S.) gtt. xvj. syr. orgeat 3ij. Dose, teaspoonful every six hours. Nov. 4.—At 8 a.m. the patient died. The symptoms of extensive disease of the lungs grew more and more marked towards the close; a colliquative diarrhoea set up during the last two weeks, which the most active treatment would check, only temporarily. The entire surface of the burns upon the back, remained unhealed. This case is interesting, as showing how forlorn a hope of recovery is held out where a burn covers a very extensive surface, especially if upon the back or abdomen.

Case 2.—Daniel Lloyd, a sailor, æt. 19, was pouring camphene from a can upon some shavings to start a fire, when a sudden explosion took place, throwing the contents of the vessel over his clothes and about the cabin. He was brought to the hospital suffering intensely. The burn covered almost the entire body. At the instance of some person in the house he was at first sprinkled with wheat flour; this afforded no relief. Three hours after, by direction of Dr. Hamilton, his whole body and extremities were enveloped in cotton batting saturated with sweet-oil. Opium was then given at intervals of three or four hours in half grain doses. The effect of the oil in assuaging the pain was very prompt and unmistakable. In the afternoon he began to sink, and brandy was ordered to be given pretty freely; also, animal broths. He, however, gradually became comatose, and died early the following morning, about eighteen hours after admission.

Case 3.—Francis Quain, æt. 32, was brought in, at midnight, Nov. 18th, having just been rescued from a lime-kiln into which he had fallen whilst in a state of inebriation. There were superficial burns upon his hands, legs, and both nates. Cotton batting saturated with sweet oil was immediately applied. In a short time the pain was relieved. Nov. 20.—The patient was seized with an attack of delirium tremens, and becoming quite unmanageable, was sent to the Flatbush Hospital.

UNIVERSITY MEDICAL COLLEGE.

PROF. ALFRED C. POST'S SURGICAL CLINIC.

December 15, 1860.

CASE XVIII. *Hare-Lip*.—M.A., girl, æt. 20. Had a congenital hare-lip which was operated on when she was fourteen months' old. This is a case of single hare-lip with slight fissure of the alveolar margin, the deformity being a little to the right of the median line. The operation has not been entirely successful, there being an opening at the upper part of the lip extending into the nostril; also, a considerable notch at the vermilion borders. To obviate this notch, it is necessary to make the incisions curved with their concavity towards each other. In this way the margin of the cleft is made to pout so as to overcome this tendency to retraction at the margin of the lip. The operation for improving the shape of the lip was now undertaken. First, the interior surface of the lip was separated from its attachment to the jaw, so that the two sides could be well drawn together. The sides of the fissure were then made raw by the curved incisions above described, the incisions being made as if the lip were being operated on for the first time. The edges of the wound were then brought together by the insertion of three autoplasty needles passed well through the tissues, and secured by the application of the figure-of-eight suture. The lip was by this operation very much improved in appearance. A strip of adhesive plaster was placed over the wound to aid in supporting the parts, the ends being left long and broad, so as to be well applied to the cheeks. This does admirably in women and children, but in men, where a strong beard grows on the face, it is of very little utility.

CASE XIX. *Steatomatous Tumor of Face*.—J. M., æt. 21, has a movable, flattened, ovoid tumor, the size of an almond, situated between the skin and mucous membrane of the cheek, a half-inch below the left angle of the mouth. This is obviously a steatoma—an encysted tumor, benign in character, slow of growth, painless, and generally giving rise to no inconvenience, though they sometimes get inflamed, and occasionally grow to a considerable size. This tumor has existed eight months. It is best removed by bisecting the cyst, turning out the contents, and then dissecting out the cyst. In removing a tumor in this situation, the facial artery should be remembered and avoided. A bistoury was passed through the whole length of the tumor, and the steatomatous matter squeezed out, after which the cyst was dissected out and the wound closed by suture.

CASE XX. *Steatomatous Tumor of Lobe of the Ear*.—J. P., æt. 60. A case similar to the preceding. The tumor was globular, about an inch in diameter, and natural in color, of eight years' growth, and situated in the lobe of the right ear. It was removed in the same way as the former, and a small portion of redundant skin excised preparatory to dressing the wound.

CASE XXI. *Subungual Exostosis*.—J.A., girl, æt. 19.—The nail of the great toe of the right foot is thickened and pushed upon the inner side. There is redness and slight inflammation about the root of the nail. A small tumor of bone can be felt on the inner side of the nail beneath a small fungous mass about the size of a currant. This is a rare form of disease. The Professor stated, that this was the third or fourth case he had ever seen. The patient was etherized, and assisted by Dr. J. H. Hinton, the Prosecutor; the Professor removed the nail with chiropodist forceps, and the bone being laid bare with the scalpel, the little tumor of bone was shaved off with bone forceps, a little below the level of the adjacent bone. The wound was dressed with picked lint, and cold water dressings ordered, with rest and elevation of the part.

SUPERNUMERARY FINGER.

J. W., æt. 6 days, has a superfluous little finger of right hand, which is normal in anatomical structure, having three phalanges and three natural joints. The other hand is

normal. Supernumerary fingers or toes are not uncommon. Sometimes they are incident to one limb, sometimes to both. This phenomenon has been attributed to mental impressions made upon the mother during gestation, and from the undoubted evidence we have, of the effect of this cause, we cannot but admit that it is sometimes productive of abnormal developments upon the fetus. Where a superfluous finger exists, its amputation is proper; but in the case before us, the child being so young, it would do better to wait a few months before the operation is performed, as the nature of the deformity does not call for immediate interference.

TALIPES VARUS.

W. L., æt. 7 years. This deformity consists of abnormal extension, inversion, and adduction of the foot. The gastrocnemius and soleus muscles acting through the tendo achillis, extend the foot, while the tibialis anticus and posticus, and the flexor longus pollicis invert and adduct it, and in these cases there is also passive contraction of the plantar fascia. The disease is congenital, and may affect one or both feet—in this case both are similarly distorted. The treatment of this deformity is more difficult as the patient advances in age, but is quite practicable in infancy, or in early life. Often division of the tendo achillis alone is required, but whatever fibrous bands prevent the foot being brought into a normal or nearly normal position must be divided. A mere section of these bands, however, does no permanent good, as it only removes a portion of the obstacles to placing the foot in a proper position. An apparatus is necessary which will gradually replace the foot in its normal position, and retain it when thus placed, and which must be worn for months, till the tendency to recurring deformity is overcome. In talipes varus, which has continued some time after the patient has commenced to walk, a large bursa forms over the outer side of the tarsus, with thickening of the skin and subjacent tissue. This is caused by the weight of the body coming upon this point, instead of upon the sole of the foot. As the patient grows in stature and his weight necessarily increases, much suffering is produced by the pressure, so as to cause in many cases painful ulceration, and the unfortunate cripple drags out a miserable existence. So great is the distress produced from this cause in some instances, that resort has been had to amputation, as a means of relief. We will now etherize the patient before us, as we can thereby operate more satisfactorily, and while the tendons to be cut are put upon the stretch by an assistant, I will divide the tendo achillis, the tendon of the tibialis anticus, and the plantar-fascia, and whatever else may interfere with the placing of the foot in its natural position. This division is effected with a narrow-bladed tenotomy knife, by subcutaneous section. The knife is passed flatwise under the tendon to be divided; then the edge being turned against the fibres, which are made tense by an assistant, they are readily cut asunder, sometimes parting with a perceptible snap. Care must be taken to pass the knife so as to hug the lower side of the tendon closely, and at the same time to avoid passing the point through it, so as to split it, as in the latter case all the fibres will not be divided, and the operation, small as it may seem to a looker-on, will be very embarrassing to the operator. In dividing the tendo achillis it is safer to enter the knife upon the inner side, as the posterior tibial artery, which lies on this side the tendon, can more easily be avoided. (The Professor, assisted by Dr. Hinton, now performed the operation in the manner proposed, after which, the foot being held in a natural position, was bandaged with a roller from the toes, and the bandage carried up the leg to the knee, and then an apparatus consisting of a modification of Scarpa's shoe was carefully applied. A similar procedure was performed upon the other foot.) An important point in the construction of and adjustment of this shoe is to keep the heel down against the sole of the shoe, which is achieved by a padded strap passing over the instep. Inversion of the foot is overcome

by a spring attached to the sole of the shoe, to which the foot is secured by a separate lacing, which drags it outward. Adduction is overcome by a perpendicular spring fastened to the sole of the shoe below, and secured to the leg at the top by a padded strap. That part of the shoe known as the "upper," is made of leather flaps, so fashioned that when laced over the foot, they make a neat and complete covering.

CONTRACTED CICATRIX FROM A BURN.

S. S., a girl, *æt.* 2½ years. When one year old this child was severely burned on the dorsum of the right hand and fore arm. The resulting cicatrix has so contracted as to bend backwards the index and middle fingers at a right angle with the metacarpus. When the wrist is forcibly flexed backwards the fingers can be straightened, but not otherwise. I propose making a V-shaped incision with the apex looking upwards, and dissecting up the included flap, slide it down, so as to relieve the tension on the back of the hand, and then to bring together the margins of the wound at the apex, as much as practicable, so as to get union there, if possible, by first intention. (The flap was dissected up by the Professor, from the wrist nearly up to the elbow, and the tension so far relieved that the fingers could be partially flexed. The slight hæmorrhage being readily controlled, the upper part of the wound left by sliding down of the flap, was brought together and secured by sutures, and the wound dressed, after which a light wooden splint was applied to the fore-arm and hand, confining the fingers in a straight line, and the arm adjusted in a sling.) When the wound now made begins to heal, by a faithful use of passive motion, there is reason to hope that the tension will be so far relieved as to overcome the deformity, and to permit some use of the fingers.

American Medical Times.

SATURDAY, JANUARY, 5, 1861.

COUNTY MEDICAL SOCIETIES.

THE duty of maintaining the authorized local organizations of the Medical profession, as well as that of preserving the purity and increasing the usefulness of its National Congress, has been steadily advocated by this journal. We believe in such fraternal conference and co-operation of physicians. It accords with the spirit and mission of our calling. And inasmuch as the local organizations of medical men in the several states constitute the basis of representation and character in the National Association, it behoves us to see to it that the primary associations in counties and towns are faithfully maintained.

The state of New York affords a fair, we might say, an excellent example of local organizations, good laws, and the disasters to which such organizations and laws are liable. In this state, great reliance has always been placed on the statutory provisions for such organizations, and too little has been done in their maintenance from a sense of moral obligation. And in later years our brethren have been wont to complain that the laws which once encouraged medical science have been repealed. Though we feel assured that this is an erroneous opinion, we would still insist upon the moral obligation to maintain efficient local

organizations of the profession, in every state, whether encouraged by the laws or otherwise.

The following facts relating to medical laws and their amendments by quacks in the state of New York may be interesting to our readers. It will be seen that our profession has received distinguished attentions from the state, and that while quackery has gained its unearned fees and evaded some penalties, it has sought in vain to become authorized and reputable in the sight of the law.

Statutes regulating the practice of medicine and surgery adorned the records of legislation in this state, during the golden period when a Clinton and a Tompkins guided the Councils of the Commonwealth. By the Acts of 1813 and 1827, the healing art and its practitioners were recognised by the legislature as being worthy the fostering care of the government; and, to this end, the reciprocal duties of the medical profession and the state were boldly declared on the statute-books. At that period the vocation of the physician was properly esteemed by legislators, the duties of the civil government were intelligently comprehended and faithfully discharged, and the public was served. It is truly refreshing to read the records of the legislation at that period, relating to medical practice. The acts here referred to were manifestly designed: *first*—to promote medical learning and professional purity; *second*—to encourage the fraternization and the co-operative usefulness of medical practitioners, by means of state and county organizations; and, *thirdly*—to aid the officers and members of such legally authorized societies to perform certain duties in behalf of the State, for the prevention of charlatanism, and for the promotion of sound knowledge and improved practice. To this end the statutes were made very carefully to define and guard the conditions and qualifications required of those who would practise medicine in this State. Those statutes do honor to the noble men who framed them, and for many years they served the exalted purpose for which they were enacted. But it must be confessed that physicians at that period did not always appreciate the friendly interest which the State had thus so generously expressed in the welfare of the public health, and its constituted guardians; for some of the county medical societies became the seats of discord, and utterly defeated the good purposes of the statutes. But upon this subject no comments are needed. It is sufficient for us to know that in the city of New York, and some other counties of the state, the county medical society became the arena of personal and partisan contentions, which were at once discreditable and injurious to the medical profession; and such abuses at length served to arm the host of quacks and impostors, natural enemies of authorized physicians, with arguments for the repeal of the laws which had so long threatened irregular and unqualified practitioners with severe penalties. Hence great and partly successful efforts were put forth for the overthrow of those statutes. At the apparent but much exaggerated triumph of quackery in the year 1844, the medical profession appear to have been singularly dismayed. Under what we believe to be an utterly erroneous interpretation of the law which was made in favor of quacks and pretenders, in that year the opinion has too widely prevailed that all laws recognising and protecting the legitimate practice of medicine and surgery in this state were repealed.

The facts in the case were simply these: In the year 1806,

the Legislature recognised, and by a special Act established the claims of Medicine as a science and an art which the State should guard from the abuses of ignorant and bad men. That Act provided for the organization of County Medical Societies, and for the establishment of a central organization, to be known as the State Medical Society. In 1813, the public duties and privileges of the profession were more completely defined, and the functions of the county societies were enlarged. The law that year made special provision for the licensing of practitioners by those societies. And, in 1827, this subject received further attention from the State, and valuable additions were made to the statutes relating to the study of medicine, the graduation or licensing of practitioners, and the protection of the people and the profession against imposters and quacks.

Now we believe it to be a fact that all these statutes which were designed to foster medical learning still remain in full force and effect, excepting only the twenty-second section of the Act of 1827, which clause provides, that—

(§ 22.) "Every person not authorized by law, who for any fee or reward shall practise physic or surgery within this State, shall be incapable of recovering, by suit, any debt arising from such practice, and shall be deemed guilty of a misdemeanor, punishable by fine or imprisonment, or both, in the discretion of the court by which he shall be convicted."

Though the latter clause of this section had been so far repealed in 1830 as to allow the lobelia quacks to practise without criminal liabilities, it was not until the entire section (§ 22) was swept away by the statute of 1844, that the profession became fully sensible of the distinguished favors it had so long enjoyed at the hands of the State. But, let the fact be noted, that the justly deprecated legislation of 1844 only repealed those clauses of the statutes which related to the fees and collections of quacks, and abolished the *criminal penalties* that had previously threatened unlicensed practitioners. But while that law removed the direct penalties and pecuniary discouragements of unlicensed practice, it was wisely provided in that very Act that whenever such practitioners were convicted of gross ignorance they should suffer severe penalties; and under that section of the law, a faithful judiciary and intelligent juries might convict every unlicensed practitioner in the State, inasmuch as all such pretenders to medical skill are daily guilty of "gross ignorance." The language of this statute is as follows:—

("§ 5.) Any person, not being a licensed physician, who shall practise or profess to practise physic or surgery, or shall prescribe medicines or specifics for the sick, and shall, in any court having cognizance thereof, be convicted of gross ignorance, mal-practice, or immoral conduct, shall be deemed guilty of a misdemeanor, and liable to a fine of not less than fifty dollars, and not exceeding one thousand dollars, or imprisonment in the county jail not less than one month nor exceeding twelve months, or both, in the discretion of the court."

Here we see that the existing laws provide for the punishment of all unlicensed practitioners and prescribers of medicine when convicted of gross ignorance; and as the "lobelia" law of 1830 has been repealed, there remains no legal defence for the horde of ignorant dabblers in medicine. They can invoke the law in the collection of their fees; but, on the other hand, the ministers of the law have the power to mulct them in costs greater than those fees. But above all this kind of incidental distinction between the true and the false in the healing art, the whole fifty "scetious" of

medical statutes now in force are manifestly designed to distinguish and defend the qualified and legitimate from the ignorant and illegitimate practitioners of medicine. And, notwithstanding all the faults of recent legislation, the State still recognises the fact that accurate scientific knowledge, special skill, and moral rectitude are prime requisites in the medical profession; and it has ever been the object of the statutes to secure and encourage these. None but "a physician and surgeon, *duly authorized by law* to practise his profession," can grant the necessary certificate for a student's graduation in medicine (*Rev. Stat. Vol. 1, chap. xiv., title 7, § 12*), and the scope and applications of the laws relating to medical societies are obviously designed to encourage sound learning and professional purity among physicians. And we believe that with proper attention to those laws, and under the influence of an enlightened public sentiment, quackery would hide its head and lose its gains. Such a reform will follow the more thorough fraternization and increased purity of the authorized profession. And to this end, every physician is in duty bound to do his full share in maintaining the efficiency and usefulness of the County, State, and National organizations of the authorized profession of Medicine. Of all these, the COUNTY MEDICAL SOCIETIES are of primary importance in New York, and in all the other States that have specially legalized and defined the powers of such societies. Upon the character, fidelity, and strength of these primary associations mainly depend the purity, power, and usefulness of the AMERICAN MEDICAL ASSOCIATION.

THE WEEK.

THE NEW YORK ACADEMY OF MEDICINE has just completed the history of its first administration under the New Constitution. JAMES ANDERSON, M.D., has been elected President, and PROF. ALFRED C. POST, M.D., Vice-President; and worthily do they represent the spirit of the Academy. Like their predecessors, Drs. Watson and Buck, they have justly earned the reputation of entire devotion to their profession, and to the welfare of the Academy. This society was originally designed to be a fraternal Union, in which all that is good and true in medicine and its practitioners, should be united for the promotion of medical science and the honor, purity, and usefulness of our profession. The fulfilment of this exalted destiny depends not less upon the humbler members, than upon the presiding officers, and the time has come when each member should feel that he is responsible for some duty or service in this scientific association. The distinguished gentleman who has just retired from the presidency, has been indefatigable in his efforts to increase the general usefulness of the Academy, and now, as his successor will strive to give success to good works already commenced, it is to be hoped that members will feel some personal responsibility for that success. Firmly as we believe in the duty of maintaining the efficiency of the County societies, we conceive that it is a much higher duty and more advantageous to our profession, to maintain voluntary associations of a purely scientific and practical character.

Reviews.

A HAND-BOOK OF HOSPITAL PRACTICE, or an Introduction to the Practical Study of Medicine at the Bed-side. By ROBERT D. LYONS, K.C.C. &c., Physician to the Jervis Street Hospital, Dublin, &c., &c. New York: S. S. & W. Wood. 1860. pp. 185.

THE bed-side study of disease is now recognised as indispensable to a thorough and practical medical education.

We need no better proof of the value of systematic clinical instruction, than is afforded by the voluntary attendance of medical students upon our hospitals, oftentimes given at a great sacrifice of personal comfort. Fully impressed as we are with the importance of hospital practice to the complete preparation of the medical graduate for the proper discharge of the duties of his subsequent professional life, we welcome any effort made to aid him in improving to the best advantage the fleeting opportunities offered him to acquire practical knowledge at the bed-side. To study disease profitably, the student requires first of all a perfect system in the details of his study of individual cases, and as perfect accuracy in each observation. Without this preparation, the student may serve a term in hospital practice, and gain little lasting benefit; but with it, no one can fail to lay up a store of facts of incalculable service in the trying scenes through which a general practitioner is called to pass.

The author of this work fully appreciates the importance of the methodical study of disease, and has undertaken to supply the student with a chart which will so guide him in the pursuit of knowledge, that no time shall be lost in vain efforts, and no opportunity for the acquisition of useful facts shall pass unimproved. The work is divided into two sections, the first being devoted to *Directions for Clinical Examinations of Patients*, and the second to *Directions for making Post-mortem Examinations*. In the first section we find special instructions in the examination of every organ, so minute and consecutive that no point can escape careful scrutiny, and no symptom a proper appreciation. In the second part, the rules given for making post-mortem examinations are minute, and the various appearances to be observed clearly specified. The appendix contains rules for writing prescriptions.

A glossary is added for the benefit of the student. The work concludes with blank forms for reporting cases.

We cannot conclude this imperfect notice without expressing the conviction which years of hospital service, and no little experience in clinical instruction, have forced upon us, that this work meets a long-existing want in the profession, and will be a most welcome handbook and guide for the student engaged in hospital practice.

THE POCKET ANATOMIST: being a Complete Description of the Human Body, for the use of Students. By M. W. HILLES, formerly Lecturer on Anatomy and Physiology at the Westminster School of Medicine, etc. Philadelphia: Lindsay & Blakiston, 1860. pp. 263.

This little volume is intended to be the *Students' Assistant* in his preparation for examination; its matter consists of brief descriptions of each anatomical part of the body; and thus is an aid to the memory in reviewing anatomy for examination.

ON THE REPARATIVE PROCESS IN HUMAN TENDONS AFTER SUBCUTANEOUS DIVISIONS FOR THE CURE OF DEFORMITIES; with an account of the appearances presented in fifteen Post-mortem examinations in the human subject; also a series of experiments on rabbits, and a résumé of the English and foreign literature of the subject. Illustrated by seven lithograph plates, and a series of wood cuts. By WILLIAM ADAMS, F.R.C.S., Surgeon to the Royal Orthopaedic and Great Northern Hospitals, &c., &c. London: John Churchill. 1860. pp. 175.

Progress of Medical Science.

MATERIA MEDICA AND PHARMACY.

By EDWARD R. SQUIBB, M.D., OF BROOKLYN.

Chloroform in Strangulated Hernia.—Dr. Thomas Bryant, of Guy's Hospital, is the author of a recent paper, (see *London Medical Review*, for August, page 67,) upon this subject, in which twelve cases are referred to, in which, after the use of chloroform to complete anæsthesia, slight efforts by taxis were successful. The cases were all inguinal hernia, and some of them, at least, had resisted all other ordinary means. By the use of chloroform, meaning probably the relaxation of the complete anæsthetic condition, whether obtained by chloroform or ether, this writer thinks the operations for strangulated hernia might be greatly reduced in number, particularly if this means of reduction be resorted to early in the case. He seems to imply, and with justice, that the attempts which are made by taxis when the patients are under the influence of the anæsthetic, just prior to an operation, are far less likely to succeed than the same measures adopted at the commencement of the case, after simple taxis, aided by position, and the warm bath had failed. This paper brought to the writer's mind several prominent instances in the practice of Dr. D. S. Landen, of Brooklyn, and others, wherein the anæsthetic condition had admitted of the easy reduction of the protrusion after other means had failed, and when a surgical operation seemed inevitable; and also one or two cases wherein this, in common with other means, had failed. The general deduction from the paper above quoted, and from the practice both here and abroad, appears to be, that anæsthetic relaxation should always be resorted to early in all cases of resisting strangulated inguinal hernia, and the earlier the better, after simple means have failed; and, again, that a failure at reduction under anæsthetics later in a case, or just when an operation is to be performed, is not good evidence that the same condition early in the case, would not have been successful. The practice, though by no means new, has not had a proper emphasis given to this latter point or deduction, in the use of anæsthetic agents.

Chlorate of Potassa.—Since writing a paragraph upon the therapeutic application of this salt to various affections in which the function of respiration is prominently obstructed, the writer has had an opportunity of becoming better acquainted with the views of Dr. Fountain, of Davenport, Iowa, and of others who have preceded him in the use of this remedy, (see *An Essay on the Treatment of Phthisis by Chlorate of Potassa*, by E. J. Fountain, A.M., M.D., of Davenport, Iowa, published in the *American Medical Monthly*, for September, 1860.) The principal points taken by Dr. Fountain are, that hitherto, whether in affections of the respiratory organs, or as a depurant of the blood in scrofulosis, etc., it has not been given in sufficient quantity, nor in a proper manner. Dr. F. thinks that the full capacity of the remedy cannot be realized short of the administration of an ounce per diem, and he gives it in saturated solution, in wine glassful doses. Having missed this important point in the practice with this remedy, by one who appears to have studied its uses and applications with care and success, it becomes necessary to supply the omission to avoid this source of disappointment for those who may give the remedy a trial.

Chloroform externally as a rapid counter-irritant.—The use of chloroform as a rapid and effective counter-irritant, as lately proposed by Mr. Little (see *Edinburgh Medical Journal*, for April, 1860), is not new, although, perhaps, not as generally known as it should be; and the practice with it in this capacity, here, can add something to the mode of application. Chloroform acts more rapidly and more energetically as a counter-irritant, when diluted with an equal part of strong alcohol, and therefore the so-called

"strong chloric ether" of Dr. Warren, of Boston, made in the proportion recommended by Dr. Snow, of London, namely, equal parts by weight of chloroform and strong alcohol, is an appropriate mixture for this purpose. The application of it requires neither gutta percha, oiled silk, nor the watch glass, but only a piece of lint or cotton flannel, and a folded napkin. The doubled lint, made of exactly the size and shape required, is well moistened with the mixture and applied to the part. It is then covered with a thickly folded napkin, applied with firm pressure, by bandage or otherwise. The burning pain commences almost instantly, and increases within a very few minutes so as to be in many cases absolutely unbearable. By this time the effect of the counter-irritation is obtained, and the paroxysm of neuralgia, toothache, or other of the neuroses for which it may have been applied is abated or shortened. As soon as it is removed the pain diminishes, though the redness and slight tumefaction continues for many hours. Desquamation takes place or not according to the length of the application and character of the surface, but blisters from its use are very rare. It is a much more speedy, safe, and elegant revellent than either mustard, or capsicum, or strong ammonia, and is more easily managed and controlled. Like Mr. Little, the writer can bear personal testimony to its efficiency. It was applied by a medical friend to the lumbar region in a case of acute lumbago, with entire success, now some six years ago.

Hypophosphites of Soda and Lime in Phthisis.—Dr. Richard Quain, and Dr. Hill, of the Brompton Hospital for Consumption, as reported by the former in the *Lancet*, for March, 1860, gave these salts an apparently fair and impartial trial, in twenty-two cases of phthisis, taking Dr. Churchill's statements as the headings for their observations, and continuing the treatment during a period of one to six months. After summing up the results, they compare these results with the records of an equal number of cases taken from the hospital books, and which had been treated in the ordinary way. The conclusions thus arrived at are very definitely stated to be that the hypophosphites are quite useless at best, but worse than useless when they are permitted to supersede or supplant ordinary well-directed methods of treatment. These results and conclusions are quite in accordance with a majority of the opinions of those practitioners whom the writer has heard speak of them after trial. Indeed, only two or three instances can now be recalled wherein physicians adhere to their use after extended trial and experience, and when thus adhered to they are used in conjunction with other remedies as cod-liver oil, etc., whose effects are less doubtful. As far as the writer's inquiry and reading go, they are considered to have entirely failed, not only in sustaining the florid reputation they started with, but also in obtaining a legitimate rank and permanency in the *materia medica*. And it is not improbable that the extensive and florid advertisement of them as proprietary medicines may have had much influence in retarding their still somewhat rapid decline.

Influence of Fatty Substances on the Solubility of Arsenious Acid.—Mr. W. S. Squire states, on the authority of Blondlot (see *London Medical Review*, for July, 1860, page 46,) that the slightest contact with fatty matters diminishes the solubility of arsenious acid in all ordinary menstrua met with in the animal economy. These competent authorities think this behavior explains the difficulties sometimes met with in medico-legal investigations, wherein the ordinary means of detecting the poison are applied in vain to the fluids of the stomach which contain fat. They also think it explains how pulverulent arsenious acid may remain for a time without poisonous action when it has met with fatty matters in the stomach; and also the statement of Morgagni, that conjurers after partaking of milk and fats will swallow arsenious acid with impunity, to be ejected after the spectators have been dismissed; and explain also the good effect of giving fatty substances, especially milk, in cases of poisoning by arsenic. With due deference to authorities who stand so deservedly high, the writer, entirely as a mat-

ter of deduction however, doubts the sufficiency of this explanation in regard to the difficulties of medico-legal investigations, since, although fatty matters retard and diminish the solubility of the poison, they neither prevent its solution, nor precipitate it when dissolved. Is it not probable that the fats act by enveloping the solid particles by some such peculiar affinity as alkaline solutions exert upon certain insoluble precipitates? However this may be, the facts obtained definitely by M. Blondlot are extremely important in a practical point of view, since they point directly and emphatically to the use of an important adjunct in the treatment of cases of poisoning by arsenic. Milk has long been advised in these cases, and its utility is now reiterated and explained by Blondlot. But as a deduction from his results, any more consistent fatty matter would be better. Lard, melted butter, lard oil, sweet oil, or indeed any oleaginous or fatty matters that might be within reach should be given as soon as possible after the poison has been taken, with the aim of retarding its action during that usually long period of time required to prepare the hydrated oxide of iron. Thus it is easy to understand how one or two copious doses of oil or fatty matters dislodged in turn by active emetics, might, within the fifteen to thirty minutes usually required to obtain the true antidote under the most favorable circumstances, leave comparatively little to be done by the antidote. Such treatment becomes of vital importance in all cases where there is doubt of obtaining the antidote very speedily.

Reports of Societies.

ACADEMY OF MEDICINE.

SURGICAL SECTION—DR. JAMES R. WOOD, PRESIDENT.

Friday, Dec. 21, 1860.

[Reported by WALTER T. COLES, M.D.]

UNUNITED FRACTURES.

DR. FINNELL asked leave to introduce a patient laboring under false joint, resulting from an ununited fracture of the humerus. The subject, a man of middle age, states that six years ago he sustained a fracture of the os brachii, in the lower portion of its middle third. He was treated in the City Hospital for some weeks, but having left of his own accord, he placed himself under the care of professional "bone-setters" of both sexes. After the lapse of more than a year, finding the bones ununited, he applied to Dr. Post, who sawed off the ends of the bones and united them by wires, but the operation was unsuccessful. In 1857, he entered St. Vincent's Hospital under Dr. Finnell's care. At this time, the limb was much atrophied, and the general condition of the patient quite poor. An operation was again resorted to. The ends of the bones being exposed by an incision, they were found to present stalactiform outshoots from their extremities; half an inch of bone was sawn off of each end, the medullary canal in the upper segment appearing quite obliterated, that in the lower, natural. The ends of the bone were brought together with soft, yet strong iron wires, care being taken to secure nicety of adaptation. The result of this operation promised favorably; in ten weeks, the wound had healed, and bony union seemed tolerably firm. But at this juncture the patient was attacked by erysipelas, which reduced him to a very asthenic condition. Nevertheless union seemed complete; there was good bony callus, and the utility and development of the limb increased; but in a few months, this callus began gradually to be absorbed, until finally false joint was reproduced. This is the condition of things presented at present; the provisional callus seems all absorbed; still, however, the limb is quite serviceable and well developed.

Dr. Buek remarked that such cases were not uncommon,

and that he had experienced much service from leather splints placed firmly over false joints of this kind, as they seemed to support and strengthen, thereby adding to the utility of the limb.

Dr. PARKER thought it would be interesting to inquire into the causes which render non-union of the os brachii so much more common than in other bones.

Dr. SAYRE suggested that it was from the great difficulty of keeping the bones in apposition.

Dr. PARKER supposed that the severance of the artery of nutrition in the bone, affected the result of fracture, and that this accident might have something to do with the very different conditions of the medullary canal in the two segments of bone, in the case of Dr. Finnell, just related.

Dr. P. related the case of a robust young farmer, æt. 25, who came to him with ununited fracture of the middle of the humerus. This case had been treated with a seton, by sawing off the ends of the bones, and bringing them together with wires, and by Brainard's method, with no success. He placed the arm and fore-arm in position, the bones being made to slightly overlap. They were then transfixed with several small steel gimlets, which were allowed to remain, they being from time to time slightly turned; the limb during the whole treatment being retained in position and kept firmly strapped to suitable splints.

Dr. WOOD said he had treated a case similarly. In his case, each of the fractured ends had been absorbed down to small points, which he sawed off, then after rasping the corresponding surfaces of a small lateral portion of the ends of the two segments, he lapped them, bringing the *rasped surfaces in contact*; he then transfixed them as stated by Dr. Parker. This plan of treatment had also been pursued with success by Dr. Stephen Smith. It was essential in this operation to preserve the integrity of the periosteum up to the very edge of the rasped surfaces.

Dr. BATCHELDER said that his own conclusions were, that the results of fractures of the humerus were in a measure owing to the manner in which such fractures were dressed. The older surgeons were of the impression that the ends of fractured bones should be firmly pressed against each other, and we see this indication fulfilled by nature in the contraction of the muscles which cause the fragments not only to press against each other, but to overlap. Now in the treatment of fractures of the os brachii, the elbow being pendant, it gradually overcomes this natural contractility of the muscles, and the bones are actually pulled apart by the weight of the elbow. In view of this fact, therefore, he considered it well after three weeks to adopt means to keep the fragments firmly in apposition.

Dr. BUCK indorsed Dr. Batchelder's idea, and suggested the propriety of examining such fractures after two or three weeks, and if deemed necessary pursue the course proposed.

Dr. WOOD related a case of ununited fracture, successfully operated upon, a short time since, in Bellevue Hospital. The patient was a boy, who sustained a fracture of the tibia and fibula, just above the ankle joint. He had been treated with ill adjusted splints, which had caused much sloughing, and mischief to the soft parts, without effecting union. After remaining in this condition for eighteen months, the Doctor operated upon him. The operation (which was performed nine weeks since) was a modification of Brainard's. After *boring* the two ends perfectly, he introduced a tenotomy knife, and made a subcutaneous section of all ligamentous tissues connecting the two segments; the limb was then put up in splints, and left immovable for five weeks; in that time there was partial union; at present (four weeks longer) union is complete between the ends of the *tibia*, the fibula being still ununited and movable. This may be united by another operation, though that will be dangerous, on account of disturbing the union already existing in the tibia.

RESECTION OF THE SHOULDER-JOINT.

Dr. BATCHELDER remarked, that the first operation of this

kind he had seen or heard of in this country, was successfully performed in Boston, in 1812.

Dr. WOOD presented a specimen from a man 45 years old, who had received a compound fracture of the neck of the humerus while blasting rocks, the capsular ligament of the shoulder-joint having been ruptured. The upper fragment, including the head of the bone, was taken out, and the arm supported up in its place by being strapped to the side; and notwithstanding the occurrence of profuse supuration from erysipelatos inflammation, the patient recovered with quite a serviceable limb. He also mentioned another successful case at Bellevue Hospital, many years ago, by Dr. Wilson.

Drs. WOOD and SAYRE reported two recent cases of successful resection of the hip-joint.

PECULIAR AFFECTION OF THE KNEE-JOINT.

Dr. PARKER said he had met with a singular trouble in the knee-joint not mentioned in any of the books; it was a peculiar *crackling crepitus*, resembling the crackling of thin parchment. It was manifest in any movement of the joint, such as ascending stairs, etc. He was satisfied that this condition was not in any manner connected with inflammation, and he was led to believe that it depended upon diminished innervation. This state of things might be produced in various ways. In one case, it was from overworking the joint, climbing a tall mountain; in another, it seemed connected with spinal debility; in a third, it was manifest after the exhaustion of miscarriage, and disappeared with returning health.

Dr. WOOD asked if these cases could have any connexion with the lithic acid diathesis.

Dr. PARKER thought not, nor was it confined to persons in advanced life.

Drs. WOOD and SAYRE attributed it to some change in the synovia of the joint.

Dr. BUCK suggested thickening of the fringes of the synovial membrane as a possible cause.

Dr. FINNELL said that *protracted rest* of a joint would produce a crackle on the resumption of its functions.

Dr. PARKER said his treatment had always been *tonic* in its character.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, NOV. 14, 1860.

E. KRACKOWIZER, M.D., President in the Chair.

LUMBAR ABSCESS WITH PERFORATION OF THE DIAPHRAGM.

Dr. ALONZO CLARK exhibited a heart which had been the seat of pericarditis. The effusion amounted to about eight ounces of serous fluid, and just enough of lymph to cover the heart all over, and leave grains of the same material on the pericardial covering. There were two reasons why he wished to show the specimen. 1. The pericardial inflammation was overlooked during life. 2. The history of the case was extremely interesting.

The patient was received in Bellevue Hospital some time in September, with what was regarded as rheumatism, the pain being mostly in the back and upon the right side. After a few days it was thought that he had a fecal accumulation, and treatment was adopted with reference to that, and also for the rheumatism, by my predecessor. The rheumatic pains had pretty much subsided by the 1st of October, when Dr. C. took the service, and the fecal accumulations had disappeared wholly. He now had pain in his back, in the right portions of the loins, and in five or six days there was a pretty large swelling, which declared itself as dependent on purulent production. This was treated by coaxing it to a point, or at any rate by waiting until it was near enough to the surface to justify opening, when one night about seven o'clock he was seized with

more than ordinary pain, and at the same time with the sensation of dyspnoea. When he came to be examined at the next visit, it was found that his chest was half full of fluid, and that the lump that had appeared before in the loins had disappeared altogether, and with it the half fluctuating feel in that region. The inference was, at the time, that the abscess, probably arising in the muscular tissue, had found its way through the intercostal space at the attachment of the diaphragm into the pleura, and that nearly the whole of the pus was to be found in the pleuritic cavity. The man suffered extremely from the constitutional effects of this accident; his countenance was dusky, his pulse 164 and small, and danger to his life seemed to be threatening. But I thought that I had better not interfere by puncturing the chest just then, but be ready to do it whenever the urgency of the symptoms would require it; regarding the natural opening as very much safer than that made by the trocar. The next day the patient suffered a good deal less, the fluid, however, remaining as before, and the next day the suffering was still less, and we were encouraged by a certain degree of improvement, a certain measure of suffering less, a falling of the pulse more nearly to its natural standard, to wait on; and in about fourteen days after I asked Dr. Wood to see the case with me, the tumor having for some days reappeared. He thought it required opening, and proposed to open it then; but as the case had interested the class of students that visited the hospital, I asked him to delay it to the next day, that the students might witness the operation. The next day, when the students were present, I found that Dr. Wood had been called out of town, and we delayed the operation one day more. Then the symptoms growing a little more urgent, Dr. Stephen Smith opened the abscess by a valvular opening, and about three gills of pus were drawn off; he then thought it better to close the opening with adhesive plaster, and repeat the operation the next day. But during the night a very considerable amount of pus escaped, which was absorbed by clothes laid under him for the purpose. Immediately after the tapping there was no subsidence of fluid in the chest, which fact gave rise to a doubt of the correctness of the diagnosis on the part of some physicians present. The next day, on visiting the patient, the fluid in the chest had subsided five inches, and left no doubt in my mind in regard to the correctness of the opinion first formed. This man was not so much relieved as we had reason to expect he would be by the operation; still he went on comfortably for three or four days more, when, on visiting him about midday, I found him in a state of collapse. He was now complaining of pain in the left side of the chest. I put my ear to that side to ascertain, if I could, whether he had an attack of pleurisy or pericarditis, and my attention was immediately directed to a distant metallic cavernous breathing, and I said, before I made a sufficient examination, there is perforation of the lung on the other side; but on examining a little more closely, I found that the sound was loud on the right side, and had been conducted to my ear through the tissues of the left, showing that the right lung had been perforated. Beyond that I did not go in my examination. It seemed to me that I had found sufficient cause for the depression.

Autopsy.—The chest was first opened, and disclosed on the right side eight or ten ounces of thin purulent matter in the pleuritic cavity, with some irregular old adhesions of the lung to the costal wall. The body was then turned upon the face, and the abscess explored. Dr. Barker, who made the examination, found a considerable cavity in the muscles of the right lumbar region; and exploring with his finger, found several sinuses leading in different directions, but at length he introduced his finger into one running upwards, which he thought led into the pleural cavity; and to make sure of it, I asked him to place a piece of rolled paper, in the lack of something better, in the opening, and then turn the body over and continue the examination from the front. Turning again the body, the lung being removed, the paper was not yet visible. The Dr. thought

he felt it as he passed his hand down into the deeper portions of the pleuritic cavity, but was not positive about it. The liver and kidney afterwards having been removed, it was ascertained that this abscess, as shown by the presence of the roll of paper, had ploughed its way upwards, and separating the attachments of the diaphragm, so made its way into the pleuritic cavity, and perforated the tenth intercostal space. The lung was perforated at its base, and two openings were nearly formed through the sixth intercostal space anteriorly. The fact of an abscess in the back opening into the pleuritic cavity, is one which I have not been familiar with.

The reason why pericarditis was not detected in this man before his death, was this: As I was listening over the heart, my ear caught the sound of this cavernous respiration, and I was so occupied with it that I did not examine any further, but I have no doubt it could have been recognised if my attention had been called to it.

INSUFFICIENCY OF THE AORTIC VALVES.

DR. CLARK exhibited a second specimen of disease of the aortic valves. The man from whom the specimen was removed, was a stage driver of intemperate habits, who reported that he had no particular sickness, until two years before his entrance into the hospital, when walking about the streets after drinking, he thought himself surrounded by cats, he made an attempt to drive them away, when he suddenly became insensible and was conveyed to a drug store. It is supposed from all accounts that he was then suffering from delirium tremens, and with it he had an attack of epilepsy. At a period subsequent to this he had another similar attack. His health was good after that, and about a month and a half ago he presented himself with some rheumatic pains in the elbows. This did not detain him long in the hospital, but it was noticed that his skin at that time was inclined to be yellow. Pretty soon after this he came back deeply jaundiced. The liver was found to be enlarged, and the diagnosis of fatty degeneration was made. He had had a little dropsy preceding his entrance into the hospital the first time, which was removed by moderate medication. On examining his heart, a murmur was discovered more distinct at about the middle of the organ on the left side, than at any other place. We regarded him then as having insufficiency of the aortic valves and regurgitation in consequence. When the extent of disease is seen in this specimen, it will be a matter of surprise that the patient was able to get about as he did, and especially to labor with his intemperate habits. His death was preceded, as in most persons who are overcharged with fat in the liver, with a general feeling of prostration, muscular weakness, finally mental weakness, slowness of speech and movements, without any positive pain anywhere. The liver was found enlarged, unusually hard, but not fully degenerated into a fatty structure; and we presumed that there was the beginning of the fibrous degeneration in the organ, which would finally have produced cirrhosis in the liver. The heart, however, interested us most. The aortic valves are quite insufficient; the union of two upon the anterior portion of aorta has evidently been torn down, and the point of union is now attached to the aorta by a band of nearly half an inch in length; but the most interesting part is that the cup of the valve on the left side of the aorta, is perforated by a very large opening which will admit the little finger; and both upper and lower surfaces, especially the latter, are covered with vegetations, which are firm and mature, showing that the accident is not of recent occurrence. The amount of cardiac hypertrophy is inconsiderable.

FRACTURE OF THE FEMUR UNITED WITHOUT SHORTENING.

DR. WOOD presented a specimen of oblique fracture of the femur, just below the trochanter major with a corresponding portion of bone of the opposite side, which were removed from a man 66 years of age, who had been an inmate of Bellevue Hospital. The patient entered the institution on the

11th of September last, with the aforementioned injury; but presenting a few days after the symptoms of insanity, and interfering constantly with the apparatus in which he was placed, the application of a strait-jacket was rendered necessary. He continued to grow worse notwithstanding everything was done in the way of good dieting and nursing, and died on the 6th of October. The apparatus used was a modification of Desault's straight splint. Dr. Wood presented the specimen to show how beautifully union had been effected by the use of the splint referred to, notwithstanding the adverse circumstances under which the apparatus was kept applied. Moreover there was no shortening; a result which told very much for American Surgery.

THE TREATMENT OF FRACTURES IN THE FRENCH HOSPITALS.

DR. CONANT presented several specimens of united and un-united fractures which he had brought from Paris, for the purpose of showing the result of the treatment of such cases by the French Surgeons. In several of the Parisian Hospitals, especially in the Hotel Dieu, no apparatus are used, the gentlemen in attendance thinking it useless to sacrifice the comfort of the patient to prevent a shortening of the limb which very rarely amounts to more than three inches. Dr. C. stated that he had met with an American Physician, who had been following the practice of the hospitals for six months, and could not recollect to have seen a single case discharged with less than an inch shortening. The specimens, consisting of the various long bones of the body, presented many curious deformities, consequent upon over-riding of the fragments upon each other, and then union at various angles. The un-united fractures presented no unusual appearance.

Correspondence.

PROF. WOODWARD ON DIPHThERIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—Diphtheria is prevailing here at this time. The first cases that occurred in this section were in an adjoining town, upon a very considerable elevation, during the month of October, since which time it has spread into, and still lingers in our own village and town. Almost every case that occurred in October died. I cannot say what the treatment consisted in. I have been able to learn but very little definitely of the amount or kind of medication. These cases were treated by a homœopathic, and also by a regular practitioner. I saw three of those cases after they had been given up by medical attendants. On my arrival I was also obliged to pronounce them fatal cases. The longest time that either of them lived after my arrival was two hours. They all died of asthenia and apnoea. One of the patients, a married lady, twenty-eight years old, was pulseless several hours before death. When I visited her two hours before the final struggle the extremities were cold, respiration greatly embarrassed—the air, in passing the larynx, producing a sound very much like the respiration of children dying of membranous croup. The countenance was dusky, and the intellect confused, showing aeration of the blood was imperfectly performed in the lungs. The other fatal cases died in very much the same way, after an illness of from six to eight days. Previously to seeing those cases I had resolved to rely upon the remedies suggested by Prof. A. CLARK, viz. chlorate of potash or tonics, in the event of being so unfortunate as to meet with the disease. But when I came to witness three deaths occurring in the way I have described, I inclined to the opinion that those articles that tend to prevent organization of the exudation in inflammatory croup were indicated in this dis-

case; as from the history of the disease we are taught that the inflammation commences in the pharynx, and extends downward into the larynx and trachea, with formation of the membrane, simultaneous with exudation. This opinion was strengthened by an article on the Treatment of Diphtheria, in *Braithwaite's Retrospect*, advocating calomel. I have always placed my dependence on calomel in inflammatory croup, as an agent above all others tending to prevent organization of exuded plasma. Forming my opinion upon the above data, I resolved to use quinine and chlorate of potash, for their tonic properties, and nit. argent. in solution for a local wash, with alterative doses of calomel.

The first five cases were treated in this way; two of these five were very bad when I was first called. Great thirst; great difficulty of deglutition; frequent but small pulse; face flushed, with headache; heat of the surface not very much above that of health; the pharynx infected with a membranous patch two inches long, and an inch in diameter, upon each tonsil—the tonsils themselves being but very little enlarged. Externally the parotid submaxillary regions were tender and swollen. In the treatment of those cases I first insisted on their taking broth freely. In forty-eight hours the pulse had fallen twenty beats, and deglutition was performed with less difficulty. In six days I discharged them cured. For reasons it will not be necessary to mention, I dropped the quinine and potash in the treatment of subsequent cases, and have found calomel and the silver to answer all the indications. I have treated in the region of thirty cases with calomel and silver successfully, and have not as yet been unfortunate enough to meet with one that has resulted fatally under this plan. Dr. O'Dys, a very intelligent physician of this place, has carried out this course successfully in quite a large number of cases. These cases were ushered in and attended by the characteristic symptoms of diphtheria, i.e. membranous patches upon one or both tonsils, and sometimes upon the posterior wall of the pharynx. We are all often called to cases of the ordinary sore throat (for every person is more or less anxious about the disease), but I have not included them in the above enumeration. Only such as had the membrane well marked have I included.

Very truly yours,

A. T. WOODWARD.

BRANDON, Vt., Dec. 15, 1860.

HOMŒOPATHIC FALLACIES.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—At the opening exercises of the recently established Homœopathic College in this city a few weeks ago, the speaker for the occasion stated that the average duration of human life had generally lessened with the progress of medical science; . . . that the ratio of mortality under the "old system" of medicine was now greater than at any former period. This oracle of a new system, in his eagerness for a thrust at science, demonstrated a profundity of ignorance remarkably characteristic. In 1742, Süssmihle, a scientific fellow countryman of Hahnemann, showed the average mortality of all civilized communities at that period to be one in thirty-six. Since that time there has been a constant progress in the physical condition of man; and by comparing together the mortality statistics of civilized communities for the last twenty-five years, the average ratio at the present time will be found to be only about half as great as it was in 1742. Now although a teacher of homœopathy may be excused for knowing nothing of scientific deductions, the audience on this occasion had a right to believe that no one would have been elevated to a professorship—even in a homœopathic college—who was not at least conversant with the mortality statistics of newspapers. On reading the address our first impulse was to refer to some of the German cities which do not tolerate homœopathy; or to any community which does not tolerate the prolific causes of disease, which causes—according to homœopathy

formed external to the urethra, resulting from the irritation of a stricture, and that the abscess almost always opened externally before it opened into the urethra. If the urethra burst behind a stricture, fearfully rapid and dangerous extravasation, and not fistula, was the result. In remarking upon a case of stone, he observed that pain before micturition indicated, as a general rule, irritable bladder; pain during micturition stricture; and pain afterwards calculus. In excision of the elbow-joint Mr. S. claims that he almost invariably preserves the motions of the joint unimpaired. He insists upon the great importance of removing enough bone, and of endeavoring to obtain union of the transverse cut by first intention. He considers the H incisions alone admissible; because, if union of the transverse cut by first intention is obtained, they, by their cicatrization, furnish no hindrance to flexion.

Nov. 14.—Mr. Syme removed to-day the head of the humerus, together with about three inches of the shaft of the bone, on account of an osteo-sarcoma springing therefrom. An incision was made from the tip of the coracoid process down the arm for five or six inches, the tendons of the muscles inserted into the head of the bone and the capsular ligament were then cut through, and the bone thrust out and sawn off. Mr. Syme remarked, that there were benign and also malignant tumors of this description, and that experience had taught him that, if the bone from which the slow growth sprang was removed, the disease never returned. He said he knew of no instance in which an operation similar to the above had been practised. They had been always suffered to grow until amputation was the only resort.

A double amputation of the thigh on one side, and the leg on the other, recently occurred in this hospital, with the usual fatal result. One limb was amputated, the arteries tied, and the stump dressed, and then the other limb proceeded with. It appears to me that this method is inferior to the one pursued by Dr. Carnochan, of New York, who first rapidly amputates both limbs, and then dresses the stumps; however, such a proceeding could hardly be dreamed off here, where a surgeon of world-wide reputation is so intolerant of the presence of a possible rival that he chooses as his assistants young and inexperienced hospital-dressers.

Prof. Simpson, after describing his uterine sound, remarked that, while inventing it, he saw a case which had been seen by eleven accoucheurs, and by them considered to be either a fibrous or cancerous tumor in the posterior wall of the uterus. The sound, on being introduced, passed backwards and downwards, and easily effected the reposition of the retroverted uterus. In remarking upon the sympathetic pains occasioned by disease of the os uteri, he directed our attention particularly to the severe pain often met with under the left, and sometimes under the right mamma, or in the left hypochondriac region, accompanied by tenderness of the spine. He also mentioned a case in which pain in the sole of the foot, produced by an irritable tumor in the urethra, was so great as to almost entirely divert the attention from the urethra. Older authors mention that calculus vesicæ sometimes occasions the same pain.

Nov. 14.—Prof. Simpson kindly invited me to witness an operation for vesico-vaginal fistula, upon a private patient. As I assisted him I had an excellent opportunity to observe all his manipulations, and bear willing testimony to his wonderful adroitness. As his instruments and method are well known to the profession, it would be useless for me to describe them. It may, however, be well for me to say, that very large raw surfaces were made, and the sutures were inserted at from one-third to one-half inch from each margin. The piece of ice was now and then slipped into the vagina to check the oozing of blood. The patient lay upon her left side, with her knees drawn up; this position appearing to afford every facility. The Professor gave the chloroform by placing one thickness of a cambric handkerchief over the mouth and nostrils, and then

dropping on the chloroform at intervals until anæsthesia was produced. From this case I went with the Professor to a case of laceration in the perineum, which had occurred early in the morning of the same day. The lady had once before suffered from the same complication of labor, and so perfectly had union been effected by Prof. S. that this new rent did not follow the track of the old. The entire septum between the vagina and rectum was torn through, and the rent extended upwards near two and half inches. A little chloroform was given, the patient drawn to the edge of the bed, and the edges of the rent accurately drawn together by interrupted sutures of iron wire made to embrace much tissue. The upper sutures were introduced from the vaginal surface.

I was told some time ago of a case which occurred here, in which the subcutaneous injection of two-thirds of a grain of bimeconate of morphia produced alarming results. The patient was of high rank. The respiration sank to one in forty seconds; but fortunately, after some hours, this alarming stage passed off.

Medical News.

APPOINTMENTS.

NEW YORK MEDICAL COLLEGE AND CHARITY HOSPITAL. *House Surgeons*—JOSEPH E. LYNCH, Lancaster, Ohio; WILLIAM BALSER, New York City; *House Physicians*—CALHOUN HILL, of Kenansville, N. C.; J. H. GUILD, Rupert, N. Y. These appointments were made from the graduating class.

ISLAND HOSPITAL (Blackwell's Island). By the Medical Board of Bellevue Hospital—Fowler Prentice, M.D., T. R. Whitney, M.D., J. F. Baxter, M.D., F. R. Lyman.

MARRIAGES.

ANDREWS—MORGAN.—At Augusta (Ga.), Nov. 20, 1860. By Rev. E. E. FORD, Dr. H. F. ANDREWS, of Washington, Ga., to Miss CORA MORGAN, of the former place.

COLUMBIA COLLEGE.—Prof. Torrey has presented to the College his immense *herbarium*, the fruit of forty years' assiduous labor, together with his valuable botanical library. The herbarium is especially rich in North American plants, as it contains full sets of nearly all the collections made by the numerous exploring expeditions of the United States Government, from that of Major Long, in 1819, to the present time, and the original specimens from which the descriptions in the official reports were made. The herbarium is also authority for the plants described in the *Flora of North America*, by Dr. Torrey and Dr. Gray. The *Floras of Europe, Asia, the Cape of Good Hope, Australia*, and many other parts of the world, are largely represented by collections named by the highest authority. We are glad to be able to add that it is not the intention of Dr. Torrey to relinquish his botanical studies, for the Trustees have provided him with a residence in the College buildings, and ample accommodation for his herbarium and library, so that he will be able to prosecute this important branch of science under more favorable circumstances than he has hitherto enjoyed. It is his purpose to deliver lectures on botany at such hours as will not interfere with the regular studies of the undergraduates. He has also taken measures greatly to increase the herbarium and library.

EPIDEMIOLOGICAL RECORD.

DIPHTHERIA.—DR. JAMES E. REEVES of Fairmount, Va., writes:—*Diphtheria* is prevailing extensively in many portions of Virginia. In the counties of Preston, Taylor, Barbour, Randolph, Marion, and Monongalia, the disease has prevailed for the past two years; and in some of the neighborhoods of these counties during this period the mortality has been appalling. In Fairmount and its vicinity, notwith-

standing the malady has been particularly severe, attacking children and adults, the percentage of deaths has been remarkably small, owing most assuredly to the plan of treatment adopted, *i. e.* stimulants and tonics liberally administered. Another point worthy of mention is this: During the present season *diphtheria*, genuine *scarlatina*, and *enteric fever*, the latter the common scourge of this mountainous country, have all been met with; and in several instances *diphtheria* and *scarlatina* have been found seizing at the same time different members of the same family, and in other instances *diphtheria* and *enteric fever* were the accompanying visitors."

NEW MEDICAL JOURNALS.—We have received the prospectus of the *Baltimore Journal of Medicine*, a bimonthly of 100 pages, edited by EDWARD WARREN, M.D., Professor of Materia Medica and Therapeutics in the University of Maryland, and late editor of the *Medical Journal of North Carolina*. The subscription price is fixed at \$3.00 a year. We are glad to learn that the profession of Baltimore are about to commit themselves to this enterprise, which they are able to sustain in the most creditable manner. Prof. WARREN has proved himself eminently fitted for the duties of editor, while among his colleagues, Prof. NATHAN R. SMITH and Prof. WILLIAM A. HAMMOND are widely known as our ablest writers. We notice also a new periodical called the *Berkshire Medical Journal*, edited by Professors THAYER and STILES, of the Berkshire Medical College, Mass., the first number to be issued January, 1861.

NEW YORK OPHTHALMIC SCHOOL.—The introductory to the Ninth Session was delivered by Dr. M. Stephenson at the New York Ophthalmic Hospital, No. 63 Third Avenue, on the 10th of November. He welcomed the students and medical gentlemen who had honored him with their presence, assuring them that they would always find a hearty welcome by his colleagues (Dr. Garrish and Dr. Stephenson, Jr.) as well as himself. He dwelt at some length upon the mental and physical qualifications requisite to constitute a scientific surgeon. "The mere operator," he said, "is distinguished by the number of mutilations he has committed—the surgeon by the number of cures he has effected. The surgeon consults the happiness, comfort, and ultimate safety of his patient; the mere operator too frequently studies his individual interest or notoriety, irrespective of all other considerations. The operator goes by the minute, as if running a race; the surgeon has for his motto, 'sat cito, si sat bene.' The one is fearless and ostentatious; the other cautious, yet bold; anxious, yet calm. The one glories in the knife; the other seeks it as the last resort. The one is rendered a blessing to society, and an honor to his calling; the other is odious to his brethren in the profession, and a curse to the community in which he lives."

The lectures will be continued by Dr. Stephenson every Saturday at 4 o'clock, P.M., during the winter session; and clinical instruction given by the attending surgeons three times a week during the entire year. From ten to twelve hundred patients are prescribed for annually, affording a vast field for clinical observation and remarks. At the close of each term, an examination is given to the graduating class, with a testimonial of the course of instruction, signed by the President and Secretary of the Board of Directors, the consulting and attending surgeons. The class promise to be larger the present winter than on any previous occasion, judging from present appearances.

COMMUNICATIONS have been received from:—

Dr. M. D. WILLSON, O.; Dr. R. C. WOODS, Va.; Dr. G. C. DOREN, O.; Dr. W. J. JOHNSON, N. Y.; Dr. H. HALL, Ill.; Dr. L. Y. NEWTON, N. Y.; Dr. M. J. CHASE, Ill.; Dr. D. CARL, Pa.; Dr. S. H. ALLEN, Pa.; Dr. W. C. SHURLOCK, Pa.; Dr. T. W. BLATCHFORD, N. Y.; Dr. W. G. BRADLEY, N. Y.; Dr. ANGEAR, Wis.; Dr. B. F. PIERCE, Md.; Dr. J. FOOTE, C. W.; Dr. W. F. McLEAN, Pa.; Dr. D. W. FLINT, Ill.; Dr. HOLBROOK, Mich.;

Dr. J. BOLTON, Va.; Dr. R. W. PARK, Ala.; Dr. J. M. LAZZELL, Va.; Dr. W. F. BEARD, Ky.; Dr. C. S. SHELTON, Ill.; Dr. M. S. HAYNE, N. Y.; Dr. J. K. WHITE, N. Y.; Dr. C. F. FASSETT, Vt.; Dr. H. B. HORTON, N. Y.; Dr. S. C. BATEMAN, N. Y.; Dr. D. H. BELKNAP, Wis.; Dr. C. A. MOSHER, N. Y.; Dr. A. GEDDING, Mass.; Dr. J. JACKSON, Ky.; Dr. N. B. COCHRAN, Iowa; Dr. H. GAUDEN, O.; Dr. O. W. BECKWITH, N. H.; Dr. B. F. DODSON, Wis.; Dr. R. W. PARK, Ala.; Dr. F. P. FITCH, N. H.; Dr. W. T. BROWN, O.; Dr. C. W. LAWRENCE, Mich.; Dr. E. J. FOUNTAIN, Iowa, 2); Prof. H. H. SMITH, Phila.; Dr. P. STEWART, N. Y.; Dr. J. S. COHEN, Phila.; Dr. JOHN D. JACKSON, Ky.; Dr. E. M. SPAFFORD, N. Y.; Dr. JNO. KNEELAND, N. Y.; CHAS. F. TAYLOR, N. Y.; Dr. A. WILLARD, N. Y.; Dr. D. J. CHITTENDEN, N. Y.; Dr. C. W. BOYCE, N. Y.; Dr. L. B. ROSS, Vt.; Dr. C. W. LAWRENCE, Mich.; Dr. S. P. MARTIN, Mass.; Dr. E. M. ERWIN, Mich.; Dr. H. C. COLE, Inda.; Dr. C. S. GOFF, N. Y.; Dr. D. S. STEVENS, Mich.; Dr. H. F. STEVENS, Vt.; Dr. C. GREEN, N. Y.; Dr. A. HUTCHCOCK, Mass.; Dr. P. C. WILLIAMS, Md.; Dr. J. M. DA COSTA, Pa.; Dr. S. R. BUCHER, Ill.; Dr. A. P. STRONG, N. Y.; Dr. J. W. SMITH, N. Y.; Dr. A. ATWOOD, Vt.; Dr. J. J. CULLEN, Md.; Dr. C. HINSON, Ill.; Dr. S. B. EMERSON, O.; Dr. C. MORSE, Me.; Dr. C. C. LATIMER, Ill.; Dr. E. AIKEN, N. H.; Dr. R. QUIMBY, Ill.; Dr. H. KELLEY, N. C.; Dr. W. PIERSON, N. J.; Dr. A. M. CATLIN, Vt.; Dr. L. CLART, Ill.; Dr. GREENLEAF, O.; Dr. McMILLAN, O.; Dr. PLUMMER, O.; Dr. C. O'LEARY, O.; Dr. E. HALL, N. Y.; Dr. W. H. SELLEW, N. Y.; Dr. J. MORRELL, N. Y.; Dr. J. J. FARNSWORTH, C. E.; Dr. H. FOUNTAIN, N. Y.; Dr. M. PRESTON, N. Y.; Dr. T. C. BRINSMADE, N. Y.; Dr. S. HALL, Wis.; Drs. McLANE and BROCK, Va.; Dr. B. McCLELLAN, Iowa; Dr. W. H. BRAMBLETT, Va.; Dr. J. K. FITNEY, N. J.; Dr. C. W. BOYCE, N. Y.; Dr. W. S. BRAMBLETT, Conn.; Dr. J. P. BLAWIS, N. Y.; Dr. J. PARK, N. Y.; Dr. S. S. PALMER, N. Y.; Dr. A. VAN HORNE, N. Y.; Dr. A. MERCER, N. Y.; Dr. G. C. BLACKMAN, O.; Dr. L. WARREN, Conn.; Dr. T. O. HEMOE, Kansas; Dr. A. MURDOCK, Mo.; Dr. B. NEWKIRK, Inda.; Dr. S. MATHER, O.; Dr. R. N. ISHAM, Ill.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK,

From the 22d day of December to the 31st day of December, 1860.

Deaths.—Men, 87; women, 70; boys, 107; girls, 92—total, 356. Adults, 157; children, 199; males, 194; females, 162; colored, 8. Infants under two years of age, 122. Among the causes of death we notice:—Infantile convulsions, 10; eroup, 6; diphtheria, 10; scarlet fever, 40; typhus and typhoid fevers, 10; consumption, 54; small-pox, 6; dropsy of head, 9; infantile marasmus, 11; inflammation of brain, 9; of lungs, 36; bronchitis, 9; congestion of brain, 10; of lungs, 6; whooping cough, 1; measles, 4.

Dec. 1860.	Temperature.			Difference of dry and wet bulb. Therm.		Wind.	Mean amount of cloud.	Rain.
	Mean.	Min.	Max.	Mean.	Max.			
23d	25	31	31	4	5.5	N.W.	0 to 10	In.
24th	25	30	30	4	5.5	N.W.	.05	
25th	28	32	32	4.5	6	N.W.	.04	
26th	28	32	32	3.5	5	N.W.	3	
27th	30	34	34	4	5	N.W.	3	
28th	29	33	33	4	5	N.W.	3	
29th	30	35	35	2	3	N.E.	10	

REMARKS.—Fresh winds prevailed on the first two days of the week, during the remainder they were mostly light. On the 26th the sky was variable, obscured at 6 A.M. and 6 P.M. 27th, cloudy at night. 28th, obscured A.M.

MEDICAL DIARY OF THE WEEK.

Monday, Jan. 7.	{	NEW YORK HOSPITAL, Dr. Peters, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Thomas, half-past 1 P.M.
Tuesday, Jan. 8.	{	EYE INFIRMARY, Diseases of Eye, 12 M.
		NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
Wednesday, Jan. 9.	{	EYE INFIRMARY, Diseases of Ear, 12 M.
		OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
Thursday, Jan. 10.	{	BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
		EYE INFIRMARY, Operations, 12 M.
Friday, Jan. 11.	{	NEW YORK HOSPITAL, Dr. Smith, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Sayre, half-past 1 P.M.
Saturday, Jan. 12.	{	N. Y. PATHOLOGICAL SOCIETY, half-past 7 P.M.
		OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
	{	NEW YORK HOSPITAL, Dr. Peters, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Elliot, half-past 1 P.M.
	{	NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Church half-past 1 P.M.
	{	EYE INFIRMARY, Diseases of Eye, 12 M.
		BELLEVUE HOSP., Dr. Wood, half-past 1 P.M.
	{	OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
		NEW YORK HOSPITAL, Dr. Smith, half-past 1 P.M.
	{	EMIGRANTS' HOSP., WARD'S ISLAND, Dr. Carnochan, 3 P.M.
		EYE INFIRMARY, Diseases of Ear, 12 M.

SPECIAL NOTICES.

BELLEVUE HOSPITAL.—On Saturday (this day) Jan. 5, Dr. JAMES R. WOOD will excise an elbow joint.

Original Lectures.

LECTURE ON LACTATICS.

DELIVERED AT THE NEW YORK MEDICAL COLLEGE,

BY

A. K. GARDNER, A.M., M.D.,

PROFESSOR OF CLINICAL MIDWIFERY, AND THE DISEASES OF FEMALES, ETC.

THE present state of knowledge in regard to the medicines influencing lactation, *i.e.* the secretion and excretion of milk, is one of great confusion and uncertainty. As a distinctly recognised class, they have no place in modern systematic works on *Materia Medica*. The terms, *Galactapœtica*, *Galactophora*, *Galactagoga*, *Lactifuga*, *Phymogalactetica*, *Galactophyla*, &c., have been employed so vaguely and contradictorily, so frequently, too, without specifying the individual substances to be so designated or "supposed" to have such properties, that but very little information can be gleaned from earlier writers. Finally, as to recorded practice, the medicinal properties of articles used or applications made in mammary diseases have rarely been precisely considered, the *post hoc* being here regarded *propter hoc*, in a general sense, and the statement being empirically and indefinitely, such an article "is useful in mammary inflammation," such a one "has been successfully employed against mammary abscesses," &c. I propose the name *Lactatics* to designate the medicines influencing the elimination (*i.e.* the secretion and excretion) of the milk from the human breast, with the following classification:

- | | | |
|---------------------------|---|--|
| A. Galactics | { | I. Galactagentia: Inducers of Milk. |
| (Promoters of Lactation.) | | II. Galactagogues: Expellers of Milk. |
| B. Antigalactics | { | I. Ischogalactics: Arresters or Suppressors of Milk. |
| (Opposers of Lactation.) | | II. Phygogalactics: Dispersers of Milk. |

A. GALACTICS ARE AGENTS PROMOTING LACTATION: *i.e.* THE ELIMINATION OF MILK FROM THE HUMAN MAMMA. We designate by this term all substances that

- (a) increase the supply of material to the secretory organs,
- (b) directly or indirectly stimulate or excite the latter to increased activity,
- or (c) promote the evacuation of the milk secreted.

Physiologically and therapeutically, frequent application of the child is not only the natural but also most effectual galactic. [Cases of men having secreted milk—rather anecdotes—also of Cape de Verde Islanders, &c., may be instanced. Though these exceptional cases undoubtedly occur, yet under ordinary circumstances no agent has any galactic influence on the breast of any but females that have passed the earlier months of pregnancy.] Natural or artificial suction, therefore, stimulating embrocations and cataplasms, friction, electricity, and in short all the means which increase the flow of blood to the mamma, are galactics.

I. GALACTAGENTIA are articles that tend to increase the quantity of milk secreted. [They form the (a) and (b) of galactics.] They embrace

1. *Liquid food*, including milk, good nutritious soups, ale or beer, and other malt liquors. Lager-beer is much inferior to ordinary ale in promoting the secretion of milk, and principally as it would seem from the effect of the pitch with which it is impregnated, and which acts so powerfully and immediately upon the skin and kidneys, creating such a secretion of perspiration and urine, that the tendency to the breast is thus neutralized. "*Spirituuous* liquors, instead of increasing, as many suppose, diminish the quantity of milk secreted." (Columbat de l'Isère, trans. by Meigs.) Almond Milk (*i.e.* *Mistura Amygdale*, U. S.), &c.

AM. MED. TIMES, VOL. II., No. 2.

2. *Feniculum*.—Hippocrates, as well as Galen, already speaks of fennel as a means of increasing the lacteal secretion. Dioscorides ascribes the same powers to it (lib. III. chap. lxvii. et seq.). According to Mitscherlich, also, it increases besides other secretions, certainly that of milk (Stillé's *Therap.* and *Materia Medica*, vol. i. p. 592). In Germany, especially, it has been tried extensively and lauded correspondingly. It is given either alone as infusion ad libit., or combined with various other articles still to enhance its power. I select the most celebrated and valuable formulæ, viz.:

HUFELAND: R. Sem. Fœniculi 3i.; Flav. Cort. Aurant. 3ss.; Subcarb. Magnes. 3ij.; Sacch. Alb. 3ij. M. ft. pulv. Ds. a teaspoonful three times a day.

BERG: R. Rad. Fœniculi; Apii Petroselinii; Liquirit. aa 3ss.; Herb. Anethi; Herb. Fœniculi; Herb. Cerefolii aa 3ss.; Sem. Anethi; Sem. Anisi; Sem. Fœniculi aa 3ij. Use two tablespoonfuls to the pint of water for tea.

RADIUS: R. Semin. Fœniculi 3ij.; Semin. Anisi 3ij.; Rad. Liquirit.; Herb. Anethi; Cerefolii aa 3ss. C. C. M. ft. species Ds. Use to make strong infusion with hot water, and drink as tea with a little milk.

NEUMANN: R. Rad. Salep 3ss.; Rad. Liquirit., Cort. Aurant. aa 3ij.; Semin. Fœniculi 3i.; M. ft. pulv. S. Take a teaspoonful several times a day.

M. FRANK: R. Sem. Fœniculi; Sem. Anisi aa 3ss.; Fabar. Tostar. Cacao 3ss.; M. S. Take a teaspoonful four to six times daily.

I have obtained surprising results from Hufeland's formula, which I have employed in several cases, in one where the secretion had been suppressed for three weeks.

3. *Ricinus Communis* and *Jatropha Curcas*.—Castor oil, as well as the leaves of the castor oil plant, locally applied, has long enjoyed the reputation of promoting the mammary secretion. "It [Ol. Ricini] has been recommended as a local application to the breasts of nursing women to promote the secretion of milk" (Wood and Baché's U. S. Dispensatory, p. 517). Dr. McWilliams mentioned in his report of the Niger Expedition (Lond. Med. Gazette, Jan. 1847), that the inhabitants of Buena Vista (Cape de Verde Islands) are accustomed to provide a wetnurse in an emergency in the person of any woman who has once borne a child, and is still within the age of child-bearing, by continued fomentation of the mammæ with a decoction of the leaves of the *Jatropha Curcas*. (The leaves were, in cases detailed, applied as poultices to the breast and as fomentation to the vulva for three days, at intervals.) These facts were in part confirmed by Tyler Smith (Lond. Jour., Oct. 1850), who speaks of the decoction of the leaves of *Ricinus Communis* called *Bofareira*. More recently Dr. Routh (Brit. Med. Jour. Dec. 17, 1859) exhibited three preparations of Castor Oil leaves, a tincture, a liquid (dose of each 3j.), and an extract (dose gr. v.) The leaves had been obtained from Australia. Dr. R. had given to lying-in women with deficient milk, the infusion in combination with Conger eel soup; and the effect in inducing a copious flow of milk is stated as truly remarkable. Dr. R. had also administered the extract to unmarried women within catamenial ages, and the effect had been to induce intense pain in the breasts of such; but as he could not find anybody in that case that would try the effect of suction, he can't say whether milk was induced or not. After three or four days the symptoms were relieved by a copious leucorrhœa. Among the less generally recognised articles of this class are the, perhaps also less powerful, but yet as I have found them efficient, vanilla and tonqua beans. The former, especially when given in half drachm and drachm doses of the ordinary extract, and even when used as flavors in puddings, ices, etc., frequently have a quite marked effect, although not a very reliable one.

4. I can hardly leave the subject of Galactagentia without referring to the causes on which non-appearance of milk after parturition, or subsequent suppression, generally depend; since the removal or counteraction of the cause

in each individual case is generally the first requisite for successful treatment. I extract the following from Copland (Diet. of Pract. Med., Am. Ed., vol. ii., p. 775). "The non-appearance of milk in the breasts after parturition is generally owing to some fault in the organization, or in the nervous energy of these glands; to want of constitutional power, or of necessary nourishment; to excessive discharges, whether hæmorrhagic, lochial, or leucorrhœal; to the occurrence of acute or inflammatory disease; to the pre-existence of organic maladies; to mental distress or anxiety; to cold applications and astringents to the breast; or to various circumstances peculiar to individual cases. The consequent suppression of milk is generally owing to fear, sudden terror or fright, anxiety of mind, unpleasant news suddenly or unexpectedly communicated, grief, all the depressing passions and emotions, startling noises, disappointment, vexation, anger," &c.

II. GALACTAGOGUES are articles that tend to promote the flow from the breast of the milk secreted: relieving retention. [They form the (γ) of Galactics.] Retention of milk (in cases in which attempts at suction, both by the child or artificial means, are entirely ineffectual) being caused (a) by its becoming thickened and inspissated in its proper tubes, (b) by a spasmodic stricture of the milk-tubes, (c) by acute inflammatory swelling thereof, or (d) as the result of chronic inflammation of any number of milk-tubes near the nipple by closure of the aperture with obliteration of the canal, sometimes for an inch or more. These I have described in a former lecture, under the titles of strictures of the milk ducts and system of sphincters or muscular fibres surrounding the outer terminus of the reservoirs of the milk ducts at the extremity of the nipple. The modus operandi of galactagogues is evident, according to the cause. In the first case they are such as tend to restore the normal fluidity of the milk; in the second, such as relieve the spasm; in the third, such as allay the inflammation. In the fourth case, medicines will be insufficient, punctures of the tubes being necessary to remove the obstruction. The retention of milk, and therefore engorgement, is sometimes limited to a single lactiferous tube; and the erroneous notion, heretofore alluded to, as old as the time of Aristotle, that a hair, swallowed, causes the obstruction in the tube and must be got rid of by suction, is still current, and has given the name to the disease in French (poil). The various anti-phlogistic and antispasmodic applications need hardly be detailed here. Decoction of elder flowers internally has been especially recommended as influencing the fluidity of the milk, though all watery liquids (and perhaps pure water, as much) have probably the same effect. Bories recommends the following

R Nitr. depur.; Sulphuret Hydrarg. simpl. āā ʒj.; Mercur. dule. ʒ ss.; Arcani duplicat. ʒ ss.; Camphoræ ʒ ss.; Resinæ Jalapæ, ʒj.; Gummi Mimosæ, ʒj.; Syr. quinquè radie, q.s. ut ft. pil. gr. iv. S. Twice daily 2 pills, a couple of hours before and after dinner.

Lincke recommends

R Acetat Potas. ʒj.; Conserv. Flor. Calendul. q.s. ut ft. bolus. S. Take early every morning and after it a soup prepared as follows—

R Herbæ acetosæ, Betæ; Herbæ Cerefolii, Lactucæ, āā Manip. j.; Butyri recent., Salis culinar. āā q.s.; Aquæ Oij; Coque et cola.

Edwards and Vasseur recommend in addition to cataplasms Capit. Papaver and Soap,

R. Pot. Carb. ʒj.; Aq. Tilis ʒ vj.; Aq. Flor. Aurant. ʒi; Syr. Althææ ʒiij. M. Ds.—To be taken within the 24 hours.

As to local applications, M. Ranques, of Orleans (Jour. de Progrès, vol. xiv.), and M. Conby de la Pomeraye (Archives générales de Méd., vol. xx. p. 591) attribute much efficacy to the following mixture:

Cherry Laurel Water ʒiij.; Extract Belladonna ʒj. gr. vj.; Ether ʒj.

Velpeau (Diseases of the Breast and Mammary Region, London Sydenham Society, Ed. 1856, p. 43) says, he several times employed the above mixture with advantage; frequently it has failed. The following is the formula he has most frequently employed with success:

Sweet oil, ʒiij. ʒij; Ext. Belladon. gr. xvss.; Ammonia ʒj.; Camphor ʒ ss.; Yolk of Egg gr. xxx.; Ether ʒ ss.

With this gently applied four or five times a day to the breast, he thinks we can usually succeed in obtaining a rapid liquefaction of the milk, and a manifest disengagement of the parts. He says that he has also derived benefit from poultices with chervil (seandix cerefolium) boiled in milk, with the yolk of eggs, honey, and wine, and sometimes even from simple linseed poultices. Indeed it is my opinion that although so many stimulating and antispasmodic embrocations, as those of ammonia and camphor, iodide of lead, and especially mercurial friction, are strongly recommended, it is very probable that warm fomentations of water to the breast (by means of cloths, sponges, spongipiline, poultices, &c.), systematic friction (towards the nipple with the hand), and systematic pressure (by means of compresses with roller-bandage, adhesive straps, or compressed sponge and roller) properly employed and persevered in, do in most cases all the good that can locally be done, besides natural and artificial suction.

B. ANTIGALACTICS ARE AGENTS OPPOSING LACTATION: i. e. THE ELIMINATION OF MILK FROM THE HUMAN MAMMA. Such agents are etymologically "anti-galactics," i. e. *opposite* in their effects to *galactics*, as far as they tend

(a.) to cause retention in the breast, of milk already secreted;

and, (b.) to diminish, entirely suppress, or prevent secretion.

But besides, there is a third group of antigalactics used as resolvers of lacteal tumors, which seem

(c.) to disperse milk secreted.

The first group will be well enough understood from the brief notice it will presently receive in the first paragraph, under the head of Ischogalactics. But the rationale of the action of the others is entirely unknown. The suppositions are—

(a.) That the capillaries are contracted, so as to diminish the quantity of blood circulated through the organ, and to a degree incompatible with secretion;

(b.) That the impression is made by nervous or other influence upon the secretory organs, lessening their activity; or, (γ) That the absorbents of the part are stimulated to greatly increased activity.

I. ISCHOGALACTICS (ἰσχω , I keep back, I restrain) are articles that tend to diminish the quantity of milk secreted. It will thus be seen that I define ischogalactic articles to be exactly opposite in their effect to galactagentic. Before proceeding with their enumeration, we will briefly consider the opposites to galactagogues, which latter I have defined as relieving retention. Now, the individual medicines that cause retention need not be detailed. They are Tonics and Astringents. In cases of incontinence of milk, i. e. of insufficient power of retention, preparations of iron or cinchona or other tonics, shower-baths, or cold salt water bathing in proper season, a cool state of the breasts, with change of air and light, are the safest and most beneficial remedies (Copland's Diet of Pract. Med., ii. 774). Internal astringents, as mineral acids, &c., as well as topical astringents, as lotions of tannin, alum, zinc, &c., though they are used with success in these cases, should be employed with caution, as they are apt entirely to suppress the secretion.

Generally when antigalactics or antigalactagogues are spoken of, ischogalactics only are really meant. Against the excessive secretion of milk, cooling diaphoretics, mild refrigerants, and arterial sedatives, saline aperients [more especially Potassæ Sulphas (ʒ ss-ʒj)], or also Potassæ Bitartras (ʒ ss), or Potassæ Acetas (ʒiij)], low or moderate diet, sparing use of condiments and liquids, and avoidance of sexual intercourse and sexual excitement, are to be

recommended. M. Lever and Dr. Kennedy found nauseating doses of tartar emetic valuable, and Dr. Stillé speaks highly of full doses of castor oil. The special ischogalactics are as follows:—

1. *Belladonna*.—I have already mentioned that Ranque, in 1829, used a liniment of laurel water, ether, and belladonna to relieve engorgement. He found that from its continued use the milk dried up entirely (Journal de Progrès, xiv. 254). Some years later, Schuur published several examples of the same effects of belladonna (Hecker's Preuss. Medicinische Zeitschrift, Aug. 1834, p. 143). And in 1856, Mr. Goolden announced his success in arresting the secretion of milk with belladonna (London Lancet, Aug. 1856). Goolden's statement of these effects was soon confirmed in Europe and in this country. Mr. Newman reports success in more than a dozen cases in which no purgative nor other auxiliary treatment was employed (Braithwaite, xxxviii. 220): and many similar cases are reported in the various medical journals within the last two years, especially in the American Journal of Medical Sciences, the North American Medico-Chirurgical Review, the North American Med. Reporter, and the Philadelphia Medical and Surgical Reporter. [See also Trend in British Med. Journal, June 12, 1858.] In spite of the accumulated testimony of the ischogalactic effect of belladonna, the question of its real power is by no means settled. It was formerly recommended (as will be mentioned hereafter) as a phylogalactic; some regard it as a galactagogue (thus Berry, London Lancet, June, 1857, asserts that it promotes the flow of milk while it relieves tension and pain); while others explain this occurrence of freer flow of milk as the first step in its action, the milk being ultimately dried up (Kingsford, London Lancet, Sept. 1858). Dr. Spring has suggested, that in many of the reported cases the subsidence of the inflammation was spontaneous, because he found belladonna quite ineffectual in true "galactorrhœa" (Boston Med. and Surg. Journal, Aug. 1858, p. 80); but Prof. Stillé, in regard to this view, justly concludes (Therapeutics and Mat. Med., ii. 47 & 48), that the general coincidence of results obtained by the treatment in question, and the rapidity of bringing them about, appear to render this objection inadmissible. From my own experience, I must deduce the opinion, that while belladonna exerts no influence upon the milk already in the breast, it does in some cases, although not very apparently in all, tend to diminish or suspend further secretion. A mode of employment which I have found very effectual is smearing the watery extract thickly over the whole breast, and repeating this application immediately after washing off the previous one, drying carefully by compression, and removing by suction or otherwise, as much of the milk in the breast at the time, as possible—once or twice in the twenty-four hours; or a plaster made by a cloth or kid smeared with the extract of belladonna, and with a hole for the nipple to enter, may be placed over the breast, either partially or entirely, thus allowing the breast to be drawn, or the child nursed without further trouble.

2. *Conium*.—Avicenna directs hemlock plasters against the secretion of milk; and it would seem that this was known and acted upon by the ancients generally. According to Guersent, the drug given internally has produced a like effect. (Dict. de Med., article Cigue). Dioscorides said that conium extinguishes the milk and prevents its appearance, and the development of the mammae in virgins (Peireira's Mat. Med., Am. Ed., 1843, vol. ii. p. 493). D'Outrepont (who will be again referred to under Phylogalactics) asserts that under the influence of conium the mammary gland ceases secreting, and sometimes will never again secrete milk. Richter is quoted by Stillé (Op. cit. ii. 376) as recommending it in cases where it is wished to arrest or suppress the secretion. I have never used it myself, and should be somewhat afraid that the gland would become atrophied, as has been known to have occurred; that conium has a powerful influence on the gland seems proved

by Dr. Williams (whose cases see under the head of Phylogalactics).

3. *Iodide of Potassium*.—M. Rousset, of Bordeaux, published twenty cases, intended to show that when given to the extent of 8 or 10 grains, in divided doses through the day, iodide of potassium would moderate the excessive secretion of milk (Bull. de Therap. lv. 38.) Since then, many others have recommended it very highly for the purpose. Some give as much as ten grains, three times daily. Riesberg relates the case of a woman, who owing to deformity of the nipples could not suckle her children, but whose milk nevertheless continued to be secreted profusely. This occurred in her second and third confinements, and both times the secretion was arrested by the internal use of compound solution of iodine. (G. Phano.) Dr. T. Gaillard Thomas says of iodide of potassium given in full doses, and extract of belladonna painted around the nipple, in a lecture published in the American Medical Monthly, August, 1860: "These two remedies have found great favor with the vast majority of those who have tried them; and although I have seen them both fail in checking, or even in diminishing the secretion, I have much oftener in my own practice observed that benefit resulted from their use. I therefore advise you to treasure them in your memories, as means which will prove most serviceable in time of need."

4. *Salvia*.—Van Swieten records a case (Opera, xiv. 234) in which, after the child had been weaned, the secretion and a very troublesome dropping of milk continued. Various remedies were tried, but all in vain; the nurse grew leaner and leaner every day; but the disorder ceased on his giving every three hours one, two, or three ounces of a strong infusion of sage. The extract of sage has been used with as much success as the infusion as an ischogalactic. Before I properly estimated the value of belladonna, I employed Ranque's liniment externally, and an extract of sage internally, in a case in which it was desirable to suspend the lacteal secretion. This was accomplished on the sixth or seventh day, no auxiliary treatment having been used. With this exception, I have never tried the sage, but would recommend it, though astringent, as a harmless agent, which certainly appears to exercise some control over the lacteal secretion.

5. *Camphora*.—Dr. Stillé, from whose work, as the most recently published on Mat. Med., I have several times quoted already, says (Op. cit. ii. 153): "Spirits of camphor are very successfully employed to suspend the secretion of milk, after parturition; and the oily solution may be applied by friction to disperse the mammary engorgements incident to this period." Now, much as I respect Dr. S. as a teacher, and as the author of undoubtedly the most practical and best text-book on Materia Medica existing in the English language, I can by no means endorse the first part (which I have italicised) of this statement. We find similar views of the effects of camphor promulgated by most authors, seemingly one following the other unquestioningly. I must say, however, that my experience is entirely contradictory to the assumption that camphor possesses any ischogalactic properties. What I have to say of its phylogalactic effects will be stated under the proper head.

6. *Digitalis*, *hyoscyamus*, and *tobacco*, are said by various authors to have been used with more or less success in arresting or suppressing the mammary secretion. I do not, however, find enough positive data to induce me to dwell on either of these articles at any length. Still, I must say, that the effect of the ung. tabaci has been full as marked as that from belladonna, when applied as a plaster in the manner directed for using the latter. I have never seen any constitutional effects from it as is seen from the tobacco poultice upon the testicles, although the effect of belladonna similarly used is very marked upon the iris and pupil of the eye.

7. *Mentha Piperita*.—The essence of peppermint, externally applied, is with many practitioners in great favor, for arresting the secretion of milk. I have used it in many cases, and, while it failed in some, and in one it irritated

the skin near the areola so much that it was very disagreeable, yet I am convinced of its marked efficacy. I have generally used it in the following proportions:

R. Ol. Menth. Piperit. ʒ iss.; Ol. Ricini ʒ iijss.; Ol. Bergamot vel Jasmin. ʒ iss.; Gum Camphor, ʒij. M.

8. To complete this list of ischogalactics, after mentioning *coffee*, which has a marked effect in diminishing the quantity of milk, I must here again refer to the employment of external and internal strong astringents, which, as already stated, may act in this way.

II. PHYGOALACTICS are articles whose action tends to disperse the milk accumulated in the lactiferous tubes (especially when it forms indurated tumors). [I am aware that both the term I have applied to this class of lactatics and its definition are liable to objections.] Phygoalactics somewhat correspond to eutrophics. Their action is supposed to be exerted on the system of nutrition, or specially on the absorbents. They are mercurials, the preparations of iodine (the tincture painted over the breast highly recommended by Dr. H. C. Stewart, *Stillé*, op. cit. ii. 907), bromine, the preparations of gold and silver, belladonna, conium, camphor, and chamomile. Belladonna has been long ago used as a resolvent of lacteal humors by Alberti, Zimmermann, Autenrieth, etc.; Evers also recommended it in milk abscess and induration (*Richter, Ausf. Arzneimitt.* ii. 577), but whether it really does possess any phygoalactic, aside from its ischogalactic effect, I have not been able to determine. I rather doubt it, however. That conium possesses phygoalactic power has been especially shown in the experience of D'Outrepont (*Clarus, Handbuch der speciellen Arzneimittellehre*, 1860, p. 703) and Dr. S. Fr. Williams, of Deerfield, Mass. (*American Journ. of Med. Sciences*, vol. ix., p. 77). The latter employed at the same time, locally, powdered leaves of conium sprinkled on a poultice of carrots, or of the pond lily, and internally the extract of conium, of which the dose was gradually increased until constitutional symptoms were produced. He reports six cases, some of which he describes as "cancers" and "real open cancer." Five got well, and one ended in death. Of camphor, I would here say, that while I do not believe that it has any effect on the secretion of milk, I do not deny that it may act as a stimulant to the vascular and nervous systems, and promote absorption. It is possible that it would frequently be valuable as a phygoalactic. I cannot say that I have ever derived much effect upon the mamma from it, but many authors prominently ascribe to it such power. Among the formulæ recommended, I will mention that of Fuller for external, and that of Bories for internal use. The former is as follows:

R. Camphoræ ʒij.; Aq. Theriacal. ʒj.; Ammonii liquid. ʒij.; Olei Olivar. ʒij. M.

Bories:

R. Camphoræ; Kali nitrici ʒā ʒij.; Nitri acetici ʒv.; Rosh-Sambuci q. s. ut ft. pil. 120. S. Take two pills twice daily.

Chamomile flowers have frequently been brought forward as an efficient external application to prevent or remove suppuration; and it is very probably on this account that some practitioners employ it as a phygoalactic. Personally, I am not able to confirm the experience of Ozanam (*Gazette Hebdom.* v. 3, 1858); nor have trials with the *Species resolutives* of the Saxon Pharmacopœia (*Herb. menth. pip., herb. origani, flor. cham., flor. lavand., flor. sambuc. ʒā ʒj.*) given me a more favorable impression. But the whole subject of phygoalactics, and, indeed, as already observed, of lactatics, is involved in obscurity. I have presented it as lucidly as it was possible at present to do, and earnestly invite to its investigation every "working aspirant for fame." It is a field in which a real contribution to pharmacology may be made, well worthy of attention, and promising positive results both interesting and important.

CLINICAL LECTURES.

DELIVERED IN THE N. O. CHARITY HOSPITAL

BY AUSTIN FLINT, M.D.,

PROF. OF CLINICAL MEDICINE AND MEDICAL PATHOLOGY, IN THE N. O. SCHOOL OF MEDICINE.

LECTURE III.

DISEASE OF THE HEART AND EPILEPSY.

Comparative Indifference of Patients affected with Organic Disease of Heart.—History of a Case.—Examination of Patient.—Results of Auscultation and Percussion.—Distension and Pulsation of Left Jugular Vein.

GENTLEMEN:—I shall presently introduce into the amphitheatre a patient, from one of my wards, affected with disease of the heart. I make this statement before the patient comes before you, but it is not so desirable to avoid naming the disease in his hearing as you may suppose. Patients with organic disease of the heart, as a rule, are but little moved by the announcement of the fact. They generally manifest an indifference which is in striking contrast with the intense anxiety and apprehensions incident to merely functional disorder. It is curious thus to observe different states of the mind belonging to the natural history of different affections. You are doubtless aware of the hopefulness and buoyancy of mind which characterize pulmonary tuberculosis. The mental state in organic disease of the heart does not resemble that in phthisis; the patient is not kept up by a delusive expectation of recovery, but he appears to be unconcerned on the subject of the diagnosis, showing neither surprise nor depression when he is made acquainted with it. This is the more remarkable, because patients with organic disease of the heart often have had no suspicion of the fact prior to its being ascertained. In this respect, too, the difference between cases of organic disease and functional disorder is marked. Patients affected with merely functional disorder have their attention concentrated on the heart, and are with difficulty persuaded that they have not organic disease; while patients really affected with organic disease are disposed to attribute their symptoms to an affection of some other organ; for example, the liver, or the stomach.

The case which will form the subject of this lecture is interesting and instructive, as regards several points pertaining to the previous history, the present symptoms, and the physical signs.

The first point to which I will call your attention is the occurrence of rheumatism several years before any symptoms of organic disease of the heart became developed. The patient, a carpenter, aged about thirty-two, was admitted into the hospital a fortnight ago. He states that he had rheumatism six years ago; that nearly all the joints were successively affected, and that he was confined to the bed for six months. The rheumatism must have been severe, and its duration was unusually long. He does not recollect that at that time he had any pain in the chest. In a large majority of the cases of disease of the heart, involving valvular lesions, we find, as in this instance, that the patient at some period more or less remote, has had articular rheumatism. And it is fair to attribute the heart disease in these cases to an endocarditis developed in connexion with the rheumatism. Sometimes the patient is aware that there was some trouble in the chest at the time of the rheumatism, but, oftener, he cannot recollect the existence of any thoracic symptoms. The endocarditis is often completely latent as regards symptoms, and, in fact, very rarely gives rise to symptomatic phenomena distinctly referable to the heart. Hence, we can understand why the frequent occurrence of endocarditis in connexion with acute rheumatism has only been recently known. Its occurrence cannot be ascertained except by means of physical signs, and these have been made available only within a few years.

The patient states that about six months ago he began

to notice a deficiency of breath on exercise. This has progressively increased, but it did not occasion sufficient inconvenience to oblige him to quit work until a few days before he entered the hospital. Such is the account which patients, especially of the so-called laboring classes, frequently give when they first come to a hospital or a physician with disease of the heart. The first symptom is want of breath. This is at first slight, and they do not give to it much attention. It gradually increases, and labor involving muscular exertion becomes difficult. Finally, they find themselves unable to work longer, and then they seek for medical relief. Palpitation is sometimes complained of, but this symptom is often wanting, as in the present case. Our patient has not suspected that the heart is at fault. Naturally enough he has inferred from the want of breath on exercise, that there is something wrong in the breathing apparatus, and he says he thought he was falling into a consumption.

I now introduce the patient. He is up and dressed, and able to walk about without difficulty. He disclaims, indeed, being sick, and says he only lacks wind to enable him to work. When he is quiet or exercises moderately, there is no trouble in breathing whatever. The respirations are not accelerated nor labored. As you perceive, he is not emaciated, and does not present a notably morbid aspect. His appetite is excellent, and the bowels are regular. He has a slight cough, with a small expectoration. But if you examine the countenance closely, you will observe certain appearances which are significant. The proboscis are distinctly livid. The mucous membrane within the mouth is of a dark red color, and the face generally has a dusky hue. There is also slight tumidity around the eyes. What occasions this discoloration? It is due either to deficient oxygenation of the blood, or to congestion of the systemic venous capillaries, or to both these conditions combined. If caused by the first of these conditions, viz. deficient oxygenation of the blood, should we not have associated with it dyspnoea, or suffering from the want of more oxygen? Not necessarily. It is a curious fact that the system is sometimes remarkably tolerant of blood deficient in oxygen. This is more likely to be the case when the condition has been very gradually brought about, as it has been in this instance. But there is reason to think, as will presently appear, that the lividity in this case is due in a great measure, if not chiefly, to the stasis of blood in the veins. If so, the condition is that which is supposed to give rise to the lividity in certain congenital malformations of the heart, constituting the blue disease or cyanosis.

Directing attention now to the lower extremities, the body generally, and the cavities of the abdomen and chest, we find that the patient is affected, in a moderate degree, with general dropsy. The feet and ankles, as you see, are somewhat swelled, and pit on pressure. Exposing the belly, you notice a deep indentation caused by the waist-band of his pantaloons. This shows œdema of the abdominal walls. Making pressure over the sternum with the finger, the pitting distinctive of œdema is here apparent. The peritoneal sac contains some liquid. I make percussion as the patient stands, and I find dulness extending from the pubes to the umbilicus, and tympanitic resonance, due to gas in the intestines, above a horizontal line drawn through the umbilicus. Causing the patient to lie down on the back, I find the dulness below the umbilicus has disappeared, and the tympanitic resonance extends quite to the pubes. This shows the presence of liquid, which changes its level with the change of position. It is more reliable evidence of dropsical effusion into the peritoneum than a sense of fluctuation; and the latter in this case is not very available, owing to the œdematous state of the abdominal walls. By precisely the same method of examination, we have evidence of a moderate amount of effusion into the pleural cavities. Percussing from above downwards when the body is in a vertical position, we have the pulmonary resonance extending a little below the nipple; then percussing when the patient is recumbent, on the back, the

pulmonary resonance is found to extend nearly to the bottom of the chest. This shows the presence of liquid, which obeys the laws of gravitation in this situation as it does in the abdominal cavity.

We have already obtained certain facts which point significantly to cardiac disease. Lividity and general dropsy constitute ground for strong suspicions as to the seat of the disease, but they are not adequate to a positive diagnosis. We must interrogate the central organ of the circulation, by means of auscultation, percussion, and palpation. I seek first for the apex-beat of the heart. I find it with difficulty, the impulse is so extremely feeble. It is in the sixth intercostal space, about half an inch without the nipple. It is therefore lowered and carried to the left of its normal situation. I apply the stethoscope over the apex, and I discover a very distinct and rather rough murmur, which just precedes the first or systolic sound of the heart. This murmur ends abruptly and completely when the first or systolic sound occurs. There is no murmur accompanying or following the first sound. The only murmur heard in this situation is the pre-systolic murmur. This murmur is heard only within a circumscribed space over and within the apex. It is not heard without the apex. This is a mitral direct murmur; so called because it is produced by the direct current of blood through the mitral orifice from the auricle to the ventricle. It is rather a rare murmur, but not so rare as some writers have stated. The reason why it is considered to occur so seldom is, I believe, that it is often confounded with the mitral regurgitant murmur—a murmur due to the current of blood from the ventricle to the auricle—a regurgitant current. Now, what does this mitral direct murmur signify? It denotes a lesion of some kind seated at the mitral orifice, and generally a lesion which involves obstruction at this orifice. The murmur, in this case, has a peculiar quality. It resembles the blubbery sound produced when air is expelled through the mouth, the lips being passively thrown into vibration. Hence, I have been accustomed to style the murmur a blubbery murmur. I suspect that it is due to union of the two curtains of the mitral valve at their sides, leaving a contracted button-hole aperture—a kind of lesion which we know occurs not infrequently.

Is this the only murmur in the case? On careful auscultation I discover a second murmur near the left margin of the sternum, between the third and fourth ribs. It is a feeble, soft murmur, which accompanies the second or diastolic sound of the heart. This is an aortic regurgitant murmur. It shows some insufficiency of the aortic valve, and consequent regurgitation from the aorta into the ventricle after the contraction of the latter, when the recoil of the arterial coats takes place, giving rise to the second sound of the heart.

Listening now to the sounds of the heart, I find the first or systolic sound over the apex, distinct, but short and valvular, like the second sound; the element of impulsion is wanting. The second sound at the base on the left side of the sternum is notably more intense than on the right side; showing either the sound due to the pulmonic valve to be increased, or that due to the aortic valve to be weakened, or that both these alterations exist—the latter being probably the true explanation in this case. These are nice points in auscultation, but some of you, as I know, are already familiar with them, and to others, although at present obscure, they will be sufficiently intelligible by-and-by.

Let me now practise percussion in the præcordia. Percussing on a horizontal line from the sternum, in the direction of the left nipple, marked dulness extends to the latter, and three-fourths of an inch beyond it. I can easily define the boundaries of this dulness, which I indicate on the chest with ink. On the right side percussing on the same horizontal line, the dulness extends about two inches beyond the right margin of the sternum. The heart is evidently enlarged, and the width of the dulness at the base leads me to think that the auricles are especially dilated.

The apex beat of the heart, as we have seen already, is scarcely perceptible. In fact it is more readily seen than felt. There is no heaving of the præcordia, nor is any impulse elsewhere than at the apex to be felt. This fact, taken in connexion with the shortness and valvular quality of the first sound, leads me to think that dilatation of the heart predominates over hypertrophy.

The conclusions, then, based on the physical signs developed by the examination, are, that lesions exist at the mitral and aortic orifices—at the latter orifice giving rise to regurgitation, and probably causing obstruction at the former orifice; that the heart is enlarged by predominant dilatation; that the auricles especially are dilated; and that the right ventricle is hypertrophied, augmenting the intensity of the pulmonic second sound. Let us now see how these conclusions accord with another very interesting sign in the case, and also with certain symptoms.

I now cause the patient to lie upon the back, and I will ask you to direct your attention to the left external jugular vein. You see the vein is considerably enlarged and filled with blood. It is much more distended when the patient is recumbent than when he sits or stands. You perceive that the vein pulsates. The pulsation is so marked that it must be apparent to those on the highest benches in the amphitheatre. The pulsation is also felt to the touch; in fact it is quite strong, much stronger than the pulsation in the carotid artery—the latter being felt with some difficulty. Perhaps you are not at once satisfied that the pulsation apparent in the vein is in reality venous. I will prove to you that it is so by a very simple expedient. I now place my finger on the vein at the lower part of the neck, just above the clavicle, and I make pressure sufficient to interrupt the flow of blood in the vein. The pressure is light, and entirely insufficient to interrupt the flow of blood through a large artery. You see that I arrest immediately the pulsation, which returns directly my finger is removed. I can arrest it at will by preventing the flow of blood in the vessel. This suffices to prove that it is a venous not an arterial pulsation. It is due to a retrograde current of blood through the venæ cavae, and the larger veins which are tributary thereto. It is apparent on the right as well as on the left side of the neck, but, contrary to the rule, is much more marked on the left side.

(To be continued.)

Original Communications.

ON THE USE OF PESSARIES.

BY P. STEWART, M.D.,

OF PEEKSKILL, N.Y.

It cannot be denied that *fashion* has more or less influence in determining the use of remedial agents. From twenty to thirty years ago, it was the *fashion* to treat almost every case of *prolapsus uteri* with the pessary, and nearly all the schools in this country, at least, inculcated that as the true doctrine.

Being strong in the faith, I entered upon the duties of my profession, armed and equipped with these supposed indispensable utero-vaginal agents, with the teachings of Prof. Dewees fresh in my memory, and his book under my arm. If I mistake not this faith held almost universal sway in the profession until within the last ten or twelve years; when considerable scepticism began to prevail in regard to its utility, and I had fain hoped their use was fast becoming *unfashionable*. In some discussions recently held in the Academy of Medicine, however, I learn that such is not the fact; at least, in some quarters. Their use was there advocated by some whose names very justly have great influence; and the earnestness and zeal with which the claims of the pessary were set forth may well induce those who

have arrived at different conclusions to re-examine the foundations of their faith and practice.

It is not the intention of this communication to enter into an elaborate discussion of the merits or demerits of the pessary, nor indeed any discussion at all, but simply to relate the results of my own experience, in a village and country practice of more than twenty years.

My first patient was a young girl about eighteen years of age, who had worn an oval-shaped gum elastic pessary for a period of nearly two years, by the direction of a respectable practitioner of medicine. I found on examination of this case great tenderness and thickening of the mucous membrane of the vagina and profuse leucorrhœa, with constant necessity for the catheter to evacuate the bladder, and habitual constipation. As the instrument had not been in a single instance removed since its first introduction, nearly two years, this operation was accomplished as soon as practicable, and a strong decoction of oak bark, sometimes as an injection, and sometimes by means of a saturated sponge, introduced into the vagina, was adopted as a substitute, and the horizontal posture was more or less enforced, but alternated with appropriate exercise. These things, together with an appropriate bandage, for the support of the abdominal viscera, and general tonics, constituted the treatment. The pessary had become such a horror to the patient that it was never reintroduced. Under this treatment, persevered in for about two years, the patient completely recovered, married, and bore children.

The history and result of this case rather tended to shake my implicit faith in the pessary, which my young patient regarded as an instrument of torture; or more properly, I may say, it led me to inquire whether the other means adopted might not in most cases be relied upon instead. However, I was so much attached to my authority, that I tried the pessary in some subsequent cases, but it did not please me. Either soreness, or leucorrhœa, or some other inconvenience, was so troublesome and annoying, that in every case I soon abandoned their use, and resorted to the method indicated in my first case, and with very satisfactory results. I do not question the utility of the pessary in the hands of others, but in mine it certainly failed of its object. But it must be confessed that my experience is more of a negative than a positive character, and in favor of another, and I think a much pleasanter method of treatment.

During my professional career numerous cases of prolapsus have fallen under my treatment, though in honesty I am bound to say that I have seen but two cases in which the os uteri presented at the external orifice. Mine have therefore nearly all been incomplete cases of prolapsus, many of them, however, so painful as to prevent the patient from walking or taking any exercise for the improvement of the general health. My treatment in all these cases has been such as I have described above, in direct application of astringents by means of the syringe or the sponge, repeated several times in a day, the horizontal position, alternated with riding in an easy carriage, for the invigoration of the general health, enema to keep the bowels free, an appropriate bandage to support the superincumbent viscera, and general tonics. Of course this general outline is modified to suit the exigency of each case. The best evidence of its success is the fact, that to-day, "to the best of my knowledge and belief," not a single patient that has submitted fully to this treatment under my direction is suffering any inconvenience from the malady. The sponge I make use of is so small that it passes readily through the os externum, so that the nurse or the patient herself may remove and re-apply it several times in a day. The object is not so much to support the womb as to keep the astringent remedy more constantly in contact with the relaxed tissues. I am aware that Prof. Barker recommends it for the former purpose; but as his method would require the almost daily attendance of the physician to re-apply it, the inconvenience of doing it has deterred me from adopting his method. Besides the uniformly satisfactory results for

a period of twenty years make me somewhat tenacious of the *old paths*.

Perhaps I might say that I regard the bandage as a *sine qua non* in the treatment. The one I use is made in the following manner. A piece of thin sole leather, from eight to ten inches long, and from three to three and a half inches wide, is taken and made to fit nicely immediately over the pubes. Another soft pad is placed over the spine, corresponding to the front one, each furnished with loops; two strips of saddler's webbing pass around the hips, through these loops, one above the other, and fastened in front, the lower one being a little the shortest, that the pressure may be exerted from below upwards. Another strap, made with rolled cotton, passes around the inside of the head of each thigh and fastened to the other pad, by means of a small ring and an elastic. There is nothing new in this treatment; and if its results should be as satisfactory to others as they have been to myself, the use of that unpleasant instrument, the pessary, would be entirely superseded.

ON THE USE OF LOOPED WIRE

IN THE REMOVAL OF FOREIGN BODIES FROM THE AIR-PASSAGES,
WITH A REPORT OF TWO CASES,

By J. J. TOMSON, M.D.

OF DAVENPORT, IOWA.

SOME time in the month of May last, a lad about eight years old, whose parents reside in this city, accidentally inhaled into the trachea a piece of clay pipe-stem, about one and a half inches long, and of large size. Dr. Maxwell saw the patient, and used the probang, hoping thereby to dislodge the foreign body and enable the boy to cough it up. After using the probang, with some other means, the boy was relieved, and it was hoped that he had coughed the pipe-stem up, and perhaps swallowed it into the stomach. He was quite relieved for some six days, running and playing as usual.

On the sixth day after inhaling the pipe-stem, one of his playmates threw a stone which accidentally struck him upon the back. From this time he became rapidly worse, with all the symptoms of a foreign body within the air-passages. A council of physicians was called, who agreed that there was a foreign body in the trachea, and that an operation was the only probable means of relief to the boy. The operation was performed by Dr. Adler, assisted by Drs. Baker, Maxwell, Fountain, and myself. After the operation, a variety of instruments and means were used, which were not successful in removing the foreign body. In the afternoon of the same day, and the morning following, Drs. Adler and Maxwell made other attempts with no better success. On the afternoon of the second day, about thirty-six hours from the time of the operation, and more than one week from the time of the inhalation of the pipe-stem, I was requested by Dr. Adler to visit the patient, with himself and Dr. Maxwell. The patient was rapidly failing, and we felt that he would certainly succumb, unless the foreign body was soon removed. After trying the forceps, hooks, etc., I suggested the use of a *looped wire*. A piece of small wire, about two feet long, was obtained, and looped in the middle, of sufficient size to embrace the end of the pipe-stem (on the same principle as removing corks from a bottle with a string). The patient's head being well thrown back, I proceeded to introduce the *looped wire*. On passing it down to the right bronchus, it came in contact with the foreign body. At this point, I raised the end which I held in my hand, and pressed the end next the foreign body back towards the spine, so as to pass my wire behind the pipe-stem. The pipe-stem was firmly impacted in the bronchus, so that it required some force to push the wire between it and the walls of the bronchial tube. The wire was passed some two inches or more below the point of obstruction, and then, on gently withdrawing

it, the loop came in contact with the lower end of the pipe-stem, which was thus easily removed. The orifice of the trachea was closed, and the boy made a rapid recovery.

On the twenty-fifth of last month, my partner, Dr. Maxwell, and myself, were sent for by Dr. Carpenter of Blue-Grass, to assist him in removing a grain of corn from the trachea of a child about one year old. The operation was performed by Dr. Maxwell: after which, I passed the loop of wire as in the other case. It was passed down the right bronchus, and passed quite easily the point of obstruction; and on its removal, it brought the kernel of corn into the trachea, which soon after made its appearance at the orifice, and was easily removed.

I wish to call the attention of the Profession to this *simple, cheap, and harmless* instrument, from the fact that I believe it will succeed in some cases where nothing else will. It can be used with perfect freedom by any one who is acquainted with the anatomy of the lungs, in searching far into the air-passages for small bodies, with little or no risk of producing serious irritation. There are other cogent reasons for its trial which will suggest themselves to the mind of every medical man. I submit its trial, with the cases above reported, to the Profession, hoping that it may be found of *some* service in such painful and unfortunate cases.

SUCCESSFUL LARYNGOTOMY FOR TONSILLITIS INDUCING OEDEMA OF GLOTTIS.

BY RALPH N. ISHAM, M.D.,

PROFESSOR OF SURGICAL ANATOMY AND OPERATIVE SURGERY IN THE LIND
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R. P., aged about ten years, is a bright healthy lad, who has been subject to cynanche tonsillitis so frequently that those glands have become indurated and enlarged; upon the least accession of cold he has an attack of "quinsy," which usually lasts for three or four days, but has never heretofore produced any alarming symptoms. Tuesday night, Dec. 18, he had a chill; the afternoon of this day he skated, and it was supposed that he thus received his cold by some imprudence when heated from the exercise. Wednesday, the tonsils became much swollen, but no symptoms arose which led to the supposition that it would differ from scores of previous attacks. I first saw him that afternoon; he was sitting up, with some difficulty of breathing, some febrile excitement, and upon examination, I found that with the utmost difficulty he could breathe through the mouth, and that the respiration was through the nose with comparative ease; there was slight deafness, hence I inferred that the swelling was confined to the tonsils, which encroached upon the eustachian tube, producing the deafness. Upon examining the fauces, the opposing surfaces of the tonsils were in apposition, the uvula pushed backwards. The treatment prescribed at this time was the use of sulph. magnes. and ant. et potass. tart., with topical applications to the throat.

Thursday morning, I was sent for at half past six o'clock; found the patient in the upright position in bed, with the respiration very labored, diaphragmatic, with heaving of the chest, and indentation of the intercostal spaces upon inspiration; quick pulse; great exhaustion from difficult respiration during the night. Upon examination, it was decided to apply a 60 grain sol. of nitrate of silver to larynx, if possible. This was attempted without success, owing to the condition of the tonsils, but the effect was evidently bad. He suffered so from the application that I saw no time was to be lost in opening the larynx or trachea. I hastened for my instruments, and returned to find the patient nearly suffocated; countenance anxious and dusky, and death imminent. But little time was lost in opening the larynx, through the crico-thyroid membrane, by means of a trochar, and inserting the tube; relief was instantaneous and great; the color was gradually restored, patient became quite conscious, and sank into a quiet sleep for a few moments.

To avoid what I consider the greatest danger from this operation, viz. inflammation of the lungs from the admission of cold air, I ordered sponges, wrung out of hot water, to be kept constantly applied to the orifice of the tube during the whole time he wore it. These were changed as often as twice a minute, and the little patient soon learned to insist upon its faithful performance for his own comfort. By means of this expedient, the air inhaled was tempered by heat and moisture to about the same degree as when inhaled through the natural passages. Cough and spasm of the bronchial tubes were also thus avoided, for it was observed if at any time the sponge was too cool, those symptoms were excited. The room was kept at the proper degree of temperature. Tuesday the 23d, I removed the tube as there was no further difficulty of breathing from disease. The wound slowly closed, and for a couple of days gave exit to mucus, sometimes quite inspissated. The patient has recovered without a single unpleasant symptom.

The rapid closure of the glottis I consider was hastened by the agitation, excitement of the circulation, and spasm, consequent upon the attempt to apply the nitrate of silver to the parts affected, but only anticipating by a short time what would inevitably have taken place from the disease extending to the glottis.

Upon a review of this case it might be suggested that the proper treatment in the emergency should have been scarification of the glottis, according to Dr. Gurdon Buck's method. This expedient occurred to me, but was precluded by the swelling of the tonsils to that extent that the finger could have scarcely been pushed beyond without the greatest difficulty.

Reports of Hospitals.

ST. VINCENT'S HOSPITAL.

DISEASES OF KNEE-JOINT.

[Reported by WILLIAM O'MEAGHER, M.D., Resident Physician and Surgeon.]

Case 1.—W.C., a youth about 17 years old, by occupation a physician's servant, was admitted May 5th, 1860, under the care of Dr. Van Buren, with chronic disease of the knee-joint of three years' standing, and not produced by injury, as far as he knew. His general appearance indicated confirmed cachexia, and a physical examination of the chest revealed positive symptoms of phthisis, to which he was subject by hereditary transmission; the rational symptoms—cough, purulent expectoration, night-sweats, nausea, anorexia, insomnia, and general emaciation—were also apparent. The condition of the knee-joint was equally unpromising, being very much enlarged, and exhibiting that peculiar doughy appearance indicative of advancing strumous disorganization. The limb itself, from the middle of the thigh to the toes, was quite oedematous; and from a fistulous opening, situated about two inches from the joint on the posterior and outer aspect of the leg, sero-purulent matter continually issued. Motion or touch produced considerable pain; the limb was bent almost to a right angle, and he lay in bed on the sound side with a pillow supporting the affected joint, a position which produced only a trifling alleviation of his discomfort. At first, resection of the joint was intended, as soon as the patient should be in a condition suitable for such an operation. For this purpose he was directed good diet, with milk-punch, beef-tea, cod-liver oil, with syr. iod. ferri, tr. iodinii locally to the oedematous extremity, and moderate pressure by means of bandages. But in consequence of the excessive irritability of the stomach only an inadequate amount of nourishment could be taken, and the oil also had to be abandoned for other medicines.

The local treatment produced a slight diminution of

the oedema, but an abscess collected in the popliteal space, aggravating still more the sufferings of the patient. He grew rapidly worse; so much so, that now the only thought was to alleviate his sufferings as much as possible by anodynes, locally and internally. He continued to sink in spite of everything in the way of nourishment or good nursing, all idea of a resection having long since been abandoned, and for that matter, any hope of saving his life being very faint indeed until the 5th of July, when amputation of the thigh, which had been previously agreed on at a consultation, was performed by Dr. Thebaud, who was then on service. After the operation, notwithstanding the free use of beef-tea, stimulants, and tonics, no healthy reaction supervened; the pulse up to the end being as high as 140. When the first dressing was removed, the wound presented an unhealthy appearance, partial and very imperfect union having taken place, and the end of the bone denuded of periosteum protruding for about an inch, while the integuments and other soft tissues up to the abdomen were filled with offensive ash-colored pus. The quantity of this increased from day to day until he died exhausted on the 12th, two months after admission.

Case 2.—Thomas McI., a single man, aged 31 years, was admitted June 29, 1860, during the service of Dr. Thebaud. This patient is a stout healthy man, of middle size and good constitution, with no acquired or hereditary tendency to disease. About nine years previously to admission, while engaged in playing at foot-ball, he received a kick from one of the players on the lower and outer part of the left thigh, in the vicinity of the knee-joint. This produced inflammation and swelling of the soft tissues, together with effusion into the joint; sloughing of the injured part soon followed, and an artificial opening was made in addition, in order to permit the free evacuation of matter, which continued to be discharged for about eight weeks, when the parts began to resume their former condition, or nearly so, the only impediment observed being a slight weakness of the joint after walking or working. Five months after this, while at his occupation as laborer, he sustained a second injury to the knee by a severe bruise, from which, also, he recovered after a time, while the joint continued in its former weak condition, being occasionally swelled and painful. For two and a half years subsequently, during which the condition of the joint remained the same, he had had no medical treatment. But on the voyage to this country it again became affected, this time more seriously than before; and on landing, he was sent to the State Hospital, where he was treated by blisters and other counter-irritation. From this he was discharged very much improved, and continued so for nine months, when he went to work for the first time. Nothing occurred for eight months subsequently until the following winter, when the knee began to trouble him again, and he was obliged to leave off work: in addition, he had several falls on the ice, which aggravated the disease. As soon as he got better, he obtained the situation of coachman in the country, where he remained for six months. At this period he noticed that change of weather always affected his knee more or less. Here again, another accident obliged him to give up this occupation too, and he again entered the State Hospital, where he remained eight months, counter-irritant treatment failing this time to make any improvement, and then left.

On admission to St. Vincent's Hospital shortly afterwards, he was laboring under a slight bronchitis only, without any symptom of tubercular disease, or indeed of any other constitutional affection whatever. Wet cups, leeches, fomentations, and rest, were directed to be repeated at intervals; and in a short time the heat and swelling subsided. The knee was enlarged, stiff, swelled, and painful, with the feeling as if of loose cartilages partially detached, and considerably interfering with the mobility of the joint. The patella, also, was almost immovable, and the ligaments were contracted and indurated: but as the relief was expected to be only temporary, resection was proposed as a final remedy. He declined, however, and soon after left.

He returned again, October 29th, under the care of Dr. A. B. Mott. While out, he had been under the care(?) of a quack, who applied several caustic issues to the part, and injured him greatly. This time the treatment has been solely by forcible extension through the means of a thick band of adhesive plaster, applied as in fractures of the femur, with a weight attached. Under this treatment, a remarkable change for the better has taken place; and the joint has resumed something of its natural condition, while its mobility is very much improved. The only difficulty in the treatment is caused by the frequent breaking of the adhesive strap, and the pain produced by constant weight, which, at the present time (November 30), is twenty-four pounds.

Case 3.—James H., 25 years of age, a married man from the country, was admitted during the service of Dr. Thebaud, May 9, 1860. This was an idiopathic, scrofulous case, somewhat similar to the first, had not existed so long, and of course did not present such an amount of disorganization. The knee presented the usual appearance of chronic effusion and inflammation having existed without any known exciting cause for about two years, and with occasional intervals of exemption from the prominent symptoms.

The treatment prescribed was, rest in bed, wet cups, subsequently leeches, with fomentations or poultices, until both pain and swelling were considerably subdued. In a short time these seemed to have a good effect, and in order to keep it up a fluid blister was applied, which still further tended to improve the condition of the joint; so much so, that the patient was allowed to sit up and rest the affected limb on a chair. But a serious complication already existed, namely tubercles in the lungs, attended by cough, hectic (at first supposed to have been an attack of intermittent to which he was liable), night sweats, and general emaciation, and in addition he was laboring under acute nephritis. In consequence of this, the local treatment, though not abandoned, was deemed of minor importance, and generous constitutional regimen at once directed. After a while this had the desired effect, and he grew stronger; but occasional exacerbations of the lesion in the joint forbade the hope of an eventual cure; resection was accordingly proposed after an irregular consultation, but the patient was unwilling, and subsequently left the Hospital. I afterwards heard that he had consulted a practitioner outside, who had the joint encased in straps of empl. ammon. c. hydrarg., and prescribed large doses of iodide of potassium internally.

Case 4.—Thomas McC—, aged 20, apparently of scrofulous constitution, but without the characteristic development, was admitted May 11, 1860, during the same service. His family were all healthy, and he himself had enjoyed good health, with the exception of an attack of intermittent fever. Five weeks previously to admission he had had an attack of rheumatism in the right knee and left elbow, which got so well in a few days under regular medical treatment that he began to walk about, but the knee again became swelled and painful. This time, of his own accord, he used various stimulating liniments, which he thought only aggravated the complaint. The same local depletion as in the former cases was here also practised, and cod-liver oil mixture with quinine ordered in addition; under this treatment a gradual improvement took place, until at the end of a month he was discharged at his own wish with a splint to the posterior part of the limb, as a safeguard. He subsequently returned by request, when the knee was found to be restored to its natural symmetry and function.

Case 5.—Michael K—, laborer, married, was admitted under the care of Dr. A. B. Mott, June 30, 1860, with chronic inflammation and effusion of the right knee-joint. His general health had been a good deal broken down in consequence of a purulent discharge from a sinus on the outer and lower part of the thigh, within about two and a half inches of the articulation. This sinus and the discharge

had existed for eighteen months, but the origin of the disease dated as far back as his seventh year. He could not say whether or not he had then sustained any injury to the part; but the lower part of the thigh, and also the knee-joint, became enlarged and painful: suppuration followed, and the abscess broke; finally, discharging a large quantity of purulent matter. Eleven spiculae of bone also came away with the discharge, and then the part healed up entirely for eighteen years, until five years previous to the date of admission, when the pain and swelling returned and continued for more than three years. At the end of this period the discharge recommenced and continued up to the time of admission to the hospital. On examination, a probe introduced into the sinus seemed to pass through the medullary canal, and the bone itself was considerably enlarged in the situation of the sinus to the extent of several inches. The usual methods were used to reduce the swelling and inflammation, and in a short time the local and constitutional condition was so much improved, that an operation to remove the supposed carious portion of the femur was decided on, after a consultation. Accordingly, on the 24th of July, Dr. A. B. Mott proceeded to trephine the bone. A longitudinal incision of about five inches was made in the part down to the bone, and the trephine applied in two places. The intervening bridge was removed by a bone nippers, and the medullary canal exposed to view. In the lower part of this were found about half an ounce of pus, and a small spicula of necrosed bone. Apprehension was now felt lest the pus had penetrated into the joint; but a careful examination failed to discover any intercommunication. The wound was then filled with shredded lint, and a light roller bandage applied. After the first dressings were removed a copious discharge of pus followed, and this continued without abatement for some weeks, until the wound gradually closed up by healthy granulation, without the occurrence of any bad symptoms. He left the Hospital about the latter end of September in very good condition, being able to walk about with the aid of a stick; the knee also resumed its natural condition and some of its former strength.

Case 6.—Mary C—, aged 36, married, the mother of several children, was admitted March 29, 1860, during the service of Dr. Finnell, with left knee-joint in an advanced state of strumous disorganization. Two months previously she received a slight accidental blow on the knee from one of her children, and next day the joint was somewhat painful, and soon became so swelled, also, that she was obliged to abstain from household duties and take to bed. But notwithstanding medical treatment and previous good health, it grew gradually worse. The extremity from the middle of the thigh was oedematous, and fluctuation was felt particularly above and around the joint. Accordingly, an incision was made on the outside of the joint in a depending position, and warm poultices were directed. During the following night, blood and matter were discharged with some relief; but a subsequent opening had to be made in order to remove the collected pus, which the first opening failed to do, and from this an immense quantity of purulent fluid continued to flow. Generous regimen was directed from the first, and stimulants were freely used; still the discharge continued, and the other symptoms were only relieved, without at all presenting any improvement in the condition of the joint. In this case, amputation of the hip-joint was thought of by Dr. Thebaud, whose service succeeded, but the low condition of the patient put this out of the question, and it was soon apparent that surgery or medicine could do nothing to stay the ravages of the disease. A physical examination of the lungs indicated tubercular softening in both, evidenced also by cough, purulent expectoration, and profuse sweats. Soon the swelling extended up to the groin, which aggravated the patient's sufferings a good deal, and the discharge continued as profuse as ever until death occurred.

COLLEGE OF PHYSICIANS AND SURGEONS.

DRS. PARKER AND MARKOE'S SURGICAL CLINIC.

December 17, 1860.

CASE XVII.—*Cancerous Tumor in the Submaxillary Region.*

—Charles A., æt. 33, presents himself with a tumor about the size of an orange, occupying the whole of the right submaxillary region. He is of a scrofulous habit, and when twelve years of age he suffered with scrofulous synovitis of the right knee-joint, which resulted in recovery, with partial ankylosis of the joint. Fourteen years ago he noticed the presence of a small lump near the right submaxillary gland. This lump gradually increased in size, but at no time has there been any pain or inflammation about the tumor. Within the past year its enlargement has been much more rapid, and it now extends from the anterior border of the sterno-cleido-mastoid muscle to the most prominent part of the chin, and from the inferior maxilla to the hyoid bone.

Diagnosis.—What is the nature of this tumor? Its history is not that of a malignant tumor, unless its accelerated rate of increase during the past year lead us to suspect that a tumor previously benign has assumed a malignant character. It has a solid feel, and may be fibrous or fibro-cellular; but fibrous tumors are rare in this situation, and they are round and smooth, while this is pyriform and lobulated. It is not an encysted tumor, for though there is an imperfect and obscure sense as of fluctuation at its prominent point, it does not present any good evidence of fluid contents. The encysted tumors also present a smooth and rounded surface, like that of the fibrous tumor. The glandular tumors and the fatty tumors are lobulated and irregular in their superficies; and, as this occupies the situation of a lymphatic gland, we may consider it probable that it is a tumor resulting from the hypertrophy and disorganization of such a gland.

Remarks.—Glandular tumors are apt to be deceptive in their appearance; they often seem to be wholly superficial when their deeper portions are in fact prolonged beneath the deep fasciæ. This tumor is easily movable under the skin, and seems to be outside of the deep cervical fasciæ; yet in operating for its removal it will be necessary to proceed with caution, and to be prepared for any accident that might result from its possible connexion with the vessels and tissues that lie deep in this region.

Operation.—The patient was etherized, and the operation was performed by Dr. Markoe. An incision, parallel to the sterno-cleido-mastoid muscle, was carried across the middle of the tumor, which was then carefully enucleated with the handle of the scalpel. The greater portion of the diseased mass was found to be superficial to the fascia profunda, from which it was easily detached by a few strokes of the bistoury, but a small process of the tumor extended down to the large cervical vessels. The hemorrhage was very slight, and was readily controlled by the ordinary means.

A microscopical examination, made after the removal of the tumor, revealed the existence of the peculiar cells, and other histological elements characteristic of a cancerous growth.

CASE XVIII.—*Enormous Hypertrophy of a Soft Mole.*—Gertrude Z., æt. 40, a married woman, has always had a great number of peculiar growths upon her back, shoulders, and bosom. These are of various size; some are subcutaneous, others are prominent and pediculated. They are ordinary soft moles, individual examples of which are commonly enough met with. Three weeks ago one of these tumors, which from childhood had been of very considerable size, situated a little below the left clavicle, commenced to enlarge, and has ever since grown with the most amazing rapidity. It now forms a pendulous growth, the base of which extends from the convexity of the shoulder to the mamma, and which hangs as low as the crest of the ilium. Its attachments are superficial, in no way involving the

deeper tissues. In color and general appearance it resembles an immensely relaxed and elongated scrotum; its lower portion is oedematous, and appears as if it might easily slough away; a little below the middle portion is an excoriation, produced by the pressure of her clothing, which, however, presents a perfectly healthy surface.

Diagnosis.—This case is unique—nothing like it is described in our books. We can only speculate as to its nature, though it is probably of the same character as the other tumors which we see upon the skin of the patient. These are composed, for the most part, of loose fibrous or fibro-cellular tissue, which contains a considerable amount of fluid in its meshes. Though rapid in its growth, this is probably a benign tumor, for it has none of the hardness and appearance peculiar to cancer.

Treatment.—The only thing we can do is to remove the tumor. Its pedicle is small, and the subjacent tissues are not involved, hence an operation will be attended with no difficulty. The patient was then removed for the purpose of photographing the tumor; on the following day she returned, and the mass was removed by Dr. Markoe. An incision was carried through the healthy skin, around the base of the tumor, which was then dissected off from the subjacent tissues. The edges of the wound were brought together, and retained in apposition by the interrupted suture.

CASE XIX.—*Dyspepsia.*—Here is a stout well-built woman with her child, an infant of one year. She is only twenty-six years of age; her parents and family are all healthy; she has no appearance of scrofula or other constitutional taint; she and her baby ought both to be strong and well. The infant, you all see, is a pale, puny little thing; its mother tells us she is still nursing it, though it is already a year old. Now we hear a great outcry every little while, about *swill-milk* and *slop-milk*, and the dreadful effect such an article of diet has upon children: it is just so in this case, the mother has nursed her child so long, and while her own health is so poor, that she can give it nothing better than *slop-milk* from her own breast. If a cow is kept in a dirty, ill-ventilated stall, where she gets no exercise and no proper food, her milk will be poor and innutritious: if a woman is placed in corresponding circumstances she will suffer in exactly the same way. Here is a woman only twenty-six years old, who is nursing her fifth child; she has had to work very hard; she has lived in small close rooms; she has been unable to leave her cares, and take proper exercise in the open air; her mind has been oppressed with anxiety; in short, her nervous system is quite exhausted. What has followed as a consequence of this state of things? She tells us that when she gets up in the morning, she has a bad taste in her mouth, and can eat no breakfast. When dinner-time comes round, she has a little appetite; but it is six or seven in the evening before she can take a full meal. Unfortunately, however, this is but the commencement of her troubles, for soon after eating she feels weight and distress at the stomach; this is followed by eructations of gas, and by that condition which is called *sour-stomach*—the food which she has taken is decomposed rather than digested in the stomach. You will naturally expect to hear that she suffers alternately with costiveness and diarrhœa.

This, then, is a case of dyspepsia. Any cause which tends to depress the nervous system may produce this disease. Anything which disturbs the mind for a length of time, intemperance in eating, the use of indigestible articles of diet, the abuse of tea or coffee, of liquor, or of tobacco, will produce dyspepsia. When any such exciting causes are recognised, the first thing to be thought of is their removal. This woman is naturally strong and hearty, but she has been overworked in every way, so that her nervous system is now in a broken-down condition, a state of things which produces difficulty of digestion, which makes thin blood, which makes *slop-milk*, which makes a *slop-baby*. The child should be weaned, and put upon a course of cod-liver oil, 3j. three times a day. The woman must have

relaxation, and exercise in the open air, with good diet. She will derive much benefit from dry friction on the skin, and from a pill composed of:

R Ext. Rhei, Pulv. Ferri, Chenoidine, aa., gr. j., Ext. Nue. Vomiceæ, gr. ss. Fit. pil., ter in die sum.

American Medical Times.

SATURDAY, JANUARY 12, 1861.

STATISTICS OF INSANITY.

THE inaccuracies of census returns in this country have frequently been made the subject of just criticism by statisticians, and in no department are these defects so inevitable and so wide from the truth as in respect to *insanity*. In another column our readers will find an interesting *resumé* of the statistics of insanity in the State of New York. The census returns of 4,455 insane persons in this state in the year 1855, were enough to raise the question, "What shall we do with the Insane?" But, as our correspondent suggests, there can be no doubt that the actual number is far greater than the figures of the census returns. From what we know of the manner in which the census of 1860, as well as that of 1855, was taken, we may justly doubt whether one fifth of the insane persons in *private houses* in the cities and large villages of this state has been recorded in the returns. We agree with Dr. BRADFORD that the *first* duty of a State Commission of Lunacy would be to obtain an accurate census of all classes of the insane in the state; for without such definite knowledge of their number and condition, the plans for improving their welfare would inevitably be defective. The means for taking such a census would be simple and reliable, and the expense comparatively little. For it is manifest that perfect accuracy in such matters could not be reached except by means of confidential correspondence between the commissioners and the physicians and the clergymen of the entire state.

In the year 1854 such a work was successfully undertaken by a State Commission in Massachusetts, and the results showed that instead of 1,680, the census number, there were no less than 2,632 insane persons known to the physicians within that state—thus showing an excess of more than *fifty per cent.* above the stated census returns. The plan adopted by the Massachusetts Commission was as follows:—

"The Commission determined to address every physician in the State, asking each one to give information relative to the persons and condition of all the lunatics and idiots within his knowledge. They sent a lithograph letter, stating the several objects of inquiry, and inclosed a printed schedule, or form of return, which contained all the heads under which the answers were to be recorded. They asked for the name, sex, color, age, country of birth; whether single, married, or widowed; whether lunatic or idiot, present and usual condition; whether mild, manageable, troublesome, excitable, furious, or dangerous; whether subject for a hospital or not; length of disease; if periodical, the number of attacks; whether curable or not; whether the remedial influences of any hospital had ever been tried for restoration; where resident, if not in the town of the reporter; and whether state or town pauper, or independent. . . . A pledge was given that none but the Commission should see the names of the persons reported, and,

in fulfilment of this promise, after the reports were prepared and corrections made for the duplications (two or more physicians reporting the same person), the names were erased."

Such statistics are greatly needed, and undoubtedly the means adopted by the Massachusetts Commissioners would be equally successful in every country. And in the State of New York, or in any other state, it is not probable that the inaccuracies of census returns would be found less than in Massachusetts. Hence we may safely conclude that the actual number of insane persons in the State of New York is not less than 6,700. Indeed there are good reasons for the opinion that the total number of the insane in the state would be found to be very nearly *seven thousand*.

In a future number we shall insert a comprehensive statistical summary of the hospital and asylum facilities for the care of the insane in the several States of the Union.* We forbear comments upon the meagreness of these provisions for lunatics in our country. These asylum statistics will tell their own story, even when compared with the imperfect census returns of insanity, while the tens of thousands of insane and idiotic poor who cannot find admission to suitable asylums, are at this hour treated more like brutes and fiends than like human beings. Pleasant as are the exceptions to such a rule of treatment, the heart of humanity would be shocked at the scenes that still may be witnessed in the wretched sties and rookeries in which most pauper lunatics are confined; while in many a sequestered hovel or garret, where squalor and bodily suffering have been needlessly substituted for domestic and personal comforts, sits

"moody Madness laughing wild
Amid severest woe."

We can conceive no higher mission of the medical profession than that of searching out, and preventing or mitigating the causes and adverse conditions of mental disease. Whether in health or in the disorders of mania, "the care of the human mind is the most noble branch of Medicine." Upon the physicians of our State and Country mainly rests the responsibility of securing for the insane that care which their deplorable condition demands.

THE WEEK.

WE learn from the *Columbian Banner* (S. C.) that R. W. GIBBES, M.D., has been appointed by the Governor, Surgeon-General of South Carolina; that F. PEYRE PORCHER, M.D., and J. J. CHISOLM, M.D., have been appointed by the Surgeon-General of South Carolina, Surgeons to the United States Marine Hospital, now in the possession of South Carolina.

From official reports it appears that the total number of immigrants during the year at this port was 103,621; the largest number being in the month of May, when 23,449 arrived. In the year 1858, 78,589 immigrants arrived, while in 1859 there were 79,322; showing an increase the present year over that of 1859 of 21,299, and over 1858 of 25,032. The amount of money brought into the country is estimated, from the records of past years, at an average of \$76 each or a total of \$7,875,196, of which over three and a half millions were brought by Irish, and nearly three millions by the Germans.

At the Annual Meeting of the New York Medical and Surgical Society held on Saturday the 5th inst., Dr. ALONZO CLARK was elected President; Dr. T. M. HALSTEAD, Vice-President; Dr. H. D. SANDS, Secretary; and Dr. THOS. F. COCK, Treasurer.

* Dr. Dunglison in North American Medico-Chirurgical Review.

Reviews.

ON DISEASES PECULIAR TO WOMEN, including DISPLACEMENTS OF THE UTERUS. By HUGH L. HODGE, M.D., Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania. "Nullius in verba magistri." Philad.: Blanchard & Lea. 1860.

This work, if a text-book, would, with a slightly altered arrangement, and an anatomical and physiological prelude, have been valuable to the student from its carefully elaborated statements of symptoms, which bear equal evidence to the industry and close observation of the author, and from its elaborate exposition of the theory and phenomena of Hysteria; but its whole plan forbids us to suppose that such was its design. In the manly letter to Dr. Meigs, which prefaces it, the author expressly claims to have written with a "desire to contribute the results of his observations and reflections towards the improvement of medicine," and in the quaint language of the eloquent obstetrician of the Jefferson school, calls it a "sign" for posterity.

It is on the basis, then, of a positive addition to our aggregate sum of scientific medical knowledge, that its value must be estimated. In our judgment, it fails of this end from its exclusiveness. The keynote of "Chapter I.," and, as we at first supposed, of the entire treatise, is Irritability; but a further perusal led us to the discovery, that Part I. is simply the outwork (rather an extensive one, to be sure) of an elaborate and skilfully constructed defence of pessaries. It opens with a vindication, as important in practice as it is just in theory, of the physical reality of those disturbances commonly called nervous; and the gallant defence of woman's character which accompanies it, runs through the book most refreshingly. The definition of irritability is thus given in a somewhat complicated sentence, which seems to mourn the loss of a relative: "By the irritability of tissues is simply meant a capability of receiving impressions from surrounding agents, and thus producing phenomena, and is only to be observed when these tissues are alive." It is to a simple exaltation of this property on the part of the uterus that the author would attribute the most of the ills that woman's flesh is peculiarly heir to. We have not space to follow him through all his careful analysis of the ideas of excitability, contractility, irritability, and sensibility. We content ourselves with giving the deduction which concerns us, and which we consider as untenable as it is remarkable, viz. that there are two distinct varieties of congestion, the one *nervous* or simple, resulting from irritation of the cerebro-spinal system, and leading only to hypertrophy or effusion; the other *organic*, resulting from irritation of the ganglionic nerves, and terminating in inflammation. We cannot accept this division, as it is unsustained by either pathological authority or observation, or by any reasoning of the author.

In the following chapters these ideas of simple irritability and nervous congestion are localized in the uterus, and the history and symptoms of Irritable Uterus carefully detailed. They do not differ from those usually assigned to chronic inflammatory diseases of the cervix and body. The congestion, hypertrophy, leucorrhœa, and even the cases

of membranous dysmenorrhœa (if they occur) are purely nervous, as Dr. Hodge thinks, not inflammatory. Although inflammation may be an accompaniment and possibly a cause of irritability, yet it is rare and tractable.

In treating of the general symptoms, direct and reflex, the point is well maintained, that so-called spinal irritation is, in the majority of cases, simply a symptom of uterine disease; while *clavus hystericus*, derangements of sensibility, and all the remarkable phenomena of hysteria, are discussed at length, which seems scarcely necessary in a work intended for practitioners. We cannot forbear calling attention to the opening paragraph of Chapter VI., in which the mysterious affiliation of mind and body is adverted to, as being peculiarly eloquent and nobly reverential in its tone. It is good to see a scientific subject approached in such a frame, however we may differ from his conclusions; and this very chapter contains one from which we must dissent most unqualifiedly. We cannot believe that puerperal convulsions are simply those of ordinary hysteria enhanced in severity by the "almost universal plethoric state of pregnant women." To ignore the toxæmic cause of these convulsions in the vast majority of instances would be not only a retrograde step in pathology, but a most dangerous practical error. The *pathology* of Irritable Uterus admits of hypertrophy and congestion, but not of induration or ulceration. Its treatment, and that of its complications, primary and secondary, occupies the three last chapters of this part. The general treatment is judicious. The remarks on diet, exercise, moral treatment, the use of water, and especially the topical application of warmth and moisture, may be read with profit. But the local treatment (injections and pessaries) we must protest against as inefficient, if not injurious. Nitrate of silver he tolerates, inasmuch as it has "long been known as possessing peculiar powers of diminishing the irritability of tissues." We think that he explains the secret of that mysterious power when he advises its use in inflammatory action in the bladder. But of the more powerful local alteratives, he is utterly intolerant. Such inflammations and ulcerations he pronounces to be as tractable as those of the mouth, unless maintained by displacements. To the history and treatment of these last mentioned affections, Part II. is devoted. We cannot agree with the Professor in his high estimate of the value of the illustrations with which this portion of his work is adorned. That "Mr. Baxter" is "an artist" we do not deny. That his pictures are prettily finished and nicely shaded, we will not gainsay. His *chiaro-oscuro* is indeed quite irreproachable. But that Mr. B. is an anatomist, these "specimens of his art" lead us to doubt most seriously. Their preternatural smoothness and disregard of minutæ lead us to suppose them not in any sense representations of objects before the eye of the artist at the time of their execution, but rather as *diagrams*, intended to convey the idea existing in the author's mind; and his admission that "they are based upon preparations in his museum, and information derived from his daily experience in the treatment of uterine diseases," tends to confirm our supposition. We cannot think that the shrivelled mummifications or the corrugated and distorted alcoholic preserves of an anatomical museum, are a fair and sufficient basis for representations of living objects. The diminished length of the uterus, being only from two and an eighth to two and a quarter inches, the strange disregard of areolar tissue, and the complete oblivion of the sigmoid flexure, leaving so enormous a vagino-rectal

pouch, that, to insure the "plenum" on which the author properly insists, the artist has been compelled to pull down into it such a mass of small intestines as certainly to produce a "vacuum" in the abdominal cavity above, all combine to strengthen this view. Nor can we think the sense of touch, great as are its capabilities, a safe guide for the pencil, in a case where the whole question of the propriety of a mode of treatment hinges on a matter of lines and angles. It is this latter ground of reliance which has led to so exaggerated a view of the inclination of the plane of the superior strait. He does not give it in figures, but a careful measurement of it in the plate representing the "Natural Position of the Pelvic Viscera," makes it 62° .

Richardson, the latest American authority on anatomy, places it at 55° , while the Germans, as represented by Braun, and the French by Cazeaux, allow it to vary between this and 60° . Littré and Robin, in "Nysten's Dictionnaire de Médecine," state the mean, taking into account alterations in posture, at 45° . The author, therefore, exceeds the furthest limit allowed by any authority at home or abroad. In no plates but his own, and we have carefully examined a number, will the "perpendicular let fall from the anterior surface of the third lumbar vertebra strike the middle of the pubes," or within half an inch of its edge.

The axis of the uterus of course corresponds to the axis of this plane. Should we meet in practice a fundus thus tilted over on the bladder, we should at once pronounce it anteverted.

The vagina, robbed of its natural curve, is made a straight tube whose axis, prolonged, strikes the coccyx, and into which the uterus opens laterally, as does the ileum into the cæcum, but at an acute angle. To the author, who values the speculum so little as not to have thought it necessary to give directions for its introduction, the difficulty which we are about to state will not be a practical one; but we venture to say that those who are still so benighted as to suppose it an important means of diagnosis and treatment, will be somewhat surprised to find that they have never obtained a view of the mouth of the womb in its natural position, without forcibly dragging it into the field; and indeed we do not see how it could be accomplished then without great difficulty. But he *ought* to have seen the incongruity of depicting a sound, or as he somewhat affectedly styles it a uterine *probe*, having a curve corresponding to an obtuse angle, as of the proper shape to be introduced in the womb in its natural position, that is at an acute angle of 60° to the vagina.

There is nothing sufficiently unusual either in his varieties or descriptions of displacements to need remark. As regards their causes, while we cannot agree with Meigs that "prolapse of the womb is simply a disease of the vagina," we are not, on the other hand, prepared with the author to ignore this tube entirely as a means of support to the uterus. It is not simply suspended from that organ. Its extensive attachments to the surrounding viscera, its great contractility, and the fact that its surfaces are always in apposition, entitle it to a fair share of consideration in this regard, at least equal to that accorded to those round ligaments which the artist has represented as describing curves, at the same time so graceful and so untrue. He should have been warned against supposing that the term "round" referred to their direction. The somewhat dogmatic assertion, that "the supposition that anteversion or

retroversion is the result of simple weight may be considered as altogether gratuitous," is founded principally on his extreme obliquity theory, and is too sweeping to be dangerous. As to their treatment, while he demonstrates ably the inadequacy of external pressure to support the womb, he considers the pessary a "sine qua non," an essential for their perfect relief." The objections to the different forms of pessaries heretofore in use are clearly pointed out. One is dirty, another inefficient, another dangerous. Where then do we find that wonder-working pessary, of whose results the professor has spoken so enthusiastically? In his own modification of the Ring Pessary. "This important modification consists in making a ring oblong instead of circular, and curved so as to correspond to the curvature of the vagina." But in his drawing of the "Natural Position, etc.," the vagina has no curvature. This instrument he entitles the *lever* pessary from its supposed mode of action. The open form has been for some time known as the *horse-shoe* pessary. He fully admits the increased dangers attendant upon its increase of power. We imagine that it will continue to prove, as it has done already, more serviceable in his own hands than in those of other physicians.

If, as we believe to be the case, the vagina does share in the sustenance of the womb, then an unyielding object introduced into it must interfere with its contractility, and in so far defeat its own object. But, if ever of service, we can conceive that it would be so in those cases of fibroid growth and solid tumors of the ovary, which are dangerous principally from their weight, and to whose rash excision he properly objects.

Part III. is devoted to Diseases of Sedation, and contains simply the author's views of amenorrhœa. They do not differ from those generally held of the amenorrhœa of anemia or atony, the affection being regarded rather as a symptom than a disease, and the treatment being directed to the general system. Of this part of the work we are compelled to say, that while the author has neither developed new pathological ideas, nor added to our therapeutic resources, he has omitted so much that is known and accepted at the present day, that it cannot be regarded either as a safe guide for the young practitioner or as a valuable contribution for the more experienced.

In place of the motto which Prof. Hodge has adopted for his work, we would suggest another, "Non progredi est regredi," for we consider the tendency of the book rather retrograde than progressive. We look upon it as a step backwards in uterine pathology of at least a decade, perhaps two. We lay it down with a feeling of disappointment which we cannot disguise. The expectations which its announcement had awakened in us, founded on our knowledge of his long experience both as a practitioner and a teacher, have not been realized. We find the old wells of nervous irritation reopened, and the copious streams of modern pathology disregarded; the careful and laborious investigations of Bennet, Simpson, Scanzoni, Kennedy, and others, set aside for the speculations of the day when physical diagnosis was in its infancy.

SMALL-POX is unusually prevalent in Philadelphia. In Columbia, S. C., it has produced such a panic as to drive away the State Convention that had assembled at the Capitol. In the City of New York, this malady is extensively prevalent as usual.

Reports of Societies.

ACADEMY OF MEDICINE.

Regular Meeting, Jan. 2, 1861.

DR. JOHN WATSON, President.

DIPHTHERIA; ITS HISTORY, CAUSES, SYMPTOMS, DIAGNOSIS, PROGNOSIS, AND TREATMENT: BY JAMES WYNNE, M.D.

THE earliest medical records contain accounts of a disease which prevailed in Egypt, Syria, and other parts of the East, having many of the characteristics of diphtheria. Aretaeus, among the ancient writers, gives the most accurate descriptions of this disease, and clearly identifies that which he witnessed with the present affection. Epidemics of this disease prevailed in Rome, A. D. 380; in Holland, in 1337; at Paris, 1576; at Naples, 1618-19; at Kingston, Jamaica, 1636; at Boston, 1736; at New York, 1770. It was not until it appeared at Tours in 1818, that it received the name diphtheria from Bretonneau. From that period to the present it has prevailed extensively in France, England, and the United States, and often, as at Albany, N. Y., with great fatality. The first death from diphtheria, reported to the office of the City Inspector in New York, occurred on the 20th of February, 1859, in the practice of Dr. Maxwell. The residence of the child, who was three and a half years old, was in 38th st., near 5th Avenue. The second death occurred at Manhattanville, on the 25th of February. On the same day a third fatal case was reported from Stanton street; on the 5th of March, the fourth case was reported from Vesey street; on the 10th of March, the fifth from the lower end of 28th street; on the 23d of March, the sixth from Grand street, near the East River; and on the 28th of March, the seventh from Varick street.

During the month of April, three deaths were reported; in May, three; in June, two; in July, two; in August, four; in September, five; in October, nine; in November, seven; and in December, ten. The whole number of deaths for 1859, was 53; of which, 30 were males and 23 females. During the present year, 1860, the number of fatal cases has considerably increased, and the prevalence of the disease, as reported at the various Dispensaries, has largely augmented. From the 1st to 28th January, 1860, fourteen deaths were reported; for the week ending February 4th, ten deaths; for that ending the 11th, twelve deaths; week ending 18th, ten deaths; for week ending 25th, fourteen deaths; for week ending 3d March, nineteen deaths; for week ending 10th, nine deaths; for week ending 17th, thirteen deaths.

Previous to the report of the cases above alluded to, some deaths from diphtheria were returned to the City Inspector, but were reported under the head of Croup. The number of cases included in the category, it is not possible to determine; but it may be fairly inferred, that they were not numerous. During the latter part of 1858, and the early part of 1859, a remarkable tendency to affections of the mucous membrane, especially of the throat, was observed, and this became so general as to constitute an important element in the medical man's daily practice. Nor was this confined to any particular part of the city, or class of persons, but seemed to pervade alike the habitations of the opulent, and the confined, ill-ventilated apartments of the poor. As yet, however, no diphtheria had been observed, and it was not until about the month of March, that medical practitioners here and there, especially among the poor, observed a thin pellicular covering over the tonsils, interspersed here and there with white star-like specks, which gradually expanded in size, and in severe cases came to cover the whole of the tonsils and extend over the other soft parts of the throat into the larynx on the one side and the nares on the other. This film-like substance could be easily removed with the sponge in its earlier stages, but

became dense and closely adherent as the disease progressed. This disposition to laryngeal affections was noticed in many other places. The progress of the disease in France, as traced by Guersant, leaves room for the most lively apprehension as to its future in the United States, and seems to demand of medical men the most careful study of its phenomena, and modes of treatment. Most practitioners who have any experience in the treatment of the disease, agree in the opinion that it is one with which they are not at all familiar, and that it now appears among them for the first time. The writer has conversed with a number of eminent practitioners in New York and elsewhere, who have been engaged in the active duties of their profession for a period varying from a quarter to half a century, and with here and there an exception, they have declared the disease unknown to them. The inference is fair, that if these gentlemen, whose position in the medical world is undoubted, have not met with the disease, it could not have prevailed in this country during the last fifty years.

The experience in France, England, and the United States, goes to show that the disease, like most epidemics, is largely dependent upon a depraved condition of the atmosphere. "Zymotic disease," says Dr. Hart, "is mostly bred by poverty out of uncleanness; and diphtheria follows a general law of what may be called the pathogenesis of zymotic poisons. In this respect it takes up its abode by preference in the hovels of the poor, where the stagnant and pent up air reeks with animal effluvia—where human beings and domestic animals 'pig' together; above all—and this is the centre to which all sanitary precautions should tend—where the poisonous cess-pool and the unflushed privy taint the air with subtle effluvia that seize their victims by the throat, and bring death with foul touch." These remarks are forcibly sustained by the prevalence of the disease at the present time in New York. Dr. Jacobi informed the Academy of Medicine, at its meeting on January 18th, that 122 cases had been reported on the books of the Canal Street Dispensary as occurring within the year, while many members of the Academy engaged in a fashionable practice had not met with a single case. It is not, however, confined alone to this class of patients, but occasionally shows itself under circumstances apparently least favorable for its development, and among these was the child of the secretary of the Academy, who unfortunately became a victim to this malady. It is but just to remark that at the other Dispensaries the disease had not presented itself in the same numbers, as in that under the charge of Dr. Jacobi; and in some, but very few cases were observed, amid a large amount of other diseases. This might be accounted for either, by supposing that it had become localized as it progressed, or that cases were reported as diphtheria at one dispensary which were not considered so at another.

The case of the 75th Regiment of Infantry of France, furnishes a remarkable example of the local effect of the disease. This regiment, which had been located in three separate garrisons at Bordeaux, Angoulême, and Rochefort, was ordered to rendezvous at Avignon. The three battalions were engaged in a fatiguing march during the months of April, May, and June, and reached Avignon in July, where they were placed in a part of the ancient Palace of the Popes. From the 14th of August to the 31st of October, 1853, the regiment was nearly disabled by an attack of diphtheria. The effective force of the regiment consisted of 1,686, men, of whom 200 were attacked as follows: of

77 officers,	5 were attacked.
22 children,	4 " "
134 sub-officers,	10 " "
110 workmen and musicians,	5 " "
1343 corporals and soldiers,	175 " "

During this attack a battery of artillery stationed at Avignon entirely escaped, and with the exception of a few isolated cases among the inhabitants of the town, the disease was exclusively confined to the 79th regiment.

In considering the causes of diphtheria, the writer touches the question of contagion, and concludes that the appearance of the disease at various and remote parts of the American continent about the same period of time, and the absolute impossibility of communication between the first cases of the disease in the various places where it has manifested itself, clearly establish the fact that its introduction into every locality where it has appeared is not due to contagion. The author is inclined to the belief, that under certain favorable conditions, after being introduced, it is susceptible of transmission by contagion. In the report of the French Academy of Medicine on the Epidemics of 1858, read by Trousseau, and just issued, it is stated; "It appears to us incontestable that the epidemic of 1858 furnishes numerous examples, where the contact of healthy individuals with those ill of diphtheria was one of the causes of the development of the malady." The case of the lamented Dr. Frick, of Baltimore, as given by his friend and biographer Dr. Donaldson (*Gross' Med Biography*) is in point:—On Tuesday, 20th March, 1860, he performed at the Infirmary, the operation of tracheotomy upon a negro woman, who was sinking from epidemic diphtheria. From early childhood he had shown a peculiar susceptibility to idiopathic poisons. He never attended a case of scarlet fever, that he did not suffer with his throat. So in this instance, in attempting to save the life of this poor creature, he apparently, at least, inhaled the poison, and the next day complained of soreness about his throat. That night he had a severe chill. The next morning the membranous diphtheria was manifest. Friday and Saturday were days of intense agony. Tracheotomy furnished some relief, but he died on Monday.

Dr. Wynne then entered at length into the symptomatology of the disease, its diagnosis, pathology, complications, and prognosis; and concluded with a consideration of the various methods of treatment. The practitioner has three important indications to fulfil in the treatment of diphtheria. 1st. To arrest the spread of the pseudo-membrane; 2d. To alter the character of morbid action, upon which the formation of this membrane depends; and 3d. To sustain the patient until these shall have been accomplished. These necessarily involve both a local and general treatment.

The local treatment consists chiefly in the application of caustic and astringent substances, in one form or another, to the affected part. Of those the most usual are nitrate of silver, either solid or in solution; powdered alumina, chloride of lime, chloride of soda, sesquichloride of iron, and hydrochloric acid.

M. Bretonneau almost invariably employs the last of these remedies as a local application in his own practice with the most marked success. The hydrochloric acid may be employed very nearly of the strength of the dilute acid of the shops, or considerably reduced in strength, dependent upon the severity or mildness of the attack. The best method of applying it is to moisten a small sponge attached to a probang or a camel's hair pencil with the fluid, and while depressing the tongue with the left hand, to carry the brush forward with the right until the fauces are reached; when these parts of the tonsils, uvula, or palate, on which the membranous deposit appears, may be moistened with the fluid and the instrument withdrawn. The hydrochloric acid should be applied not only to the membranous surface but to the parts immediately surrounding it, by which means the spread of the membrane is often arrested. The application should be renewed several times a day; care, however, must be taken not to apply it of too great strength, or too often at the onset of the disease, especially if the symptoms are not of an aggravated character; otherwise the local disease may be enhanced by the unnecessary injury inflicted upon the surrounding parts. The symptoms often appear momentarily aggravated by the local application, which is not unfrequently followed by an attempt to dislodge the membrane by vomiting. Should this latter result follow, the tonsils and palate will appear as if shrunken in substance, and spotted here and there

with a few drops of blood upon the surface formerly occupied by the membrane.

When this does occur, the application may be renewed directly upon the surface of the gland, in order to arrest the almost invariable disposition of the membrane to renew itself upon the abraded part. As the disease progresses, and the membrane extends towards or into the pharynx, the difficulty in making local applications becomes greatly enhanced, but the practitioner should not hesitate for fear of inflicting temporary pain from thoroughly exploring and covering the parts affected with the solution of hydrochloric acid. For the purpose of effecting this, it is often necessary to place the head upon the knee of an assistant, and with a spatula to depress the tongue and the lower jaw firmly at the same time, by which means a view of the whole fauces may be obtained, and an opportunity afforded of making a thorough application of the local remedy.

Nitrate of silver has been warmly recommended by Trousseau, Guersant, and Vallex, in France, and was the application almost universally resorted to in England at the commencement of the epidemic in that country. The usual mode of using nitrate of silver in England was in solution. Dr. Kingsland advised a solution of 16 grains in an ounce of distilled water, and Dr. Hart 30 grains to an ounce of distilled water as of more avail than a milder one. The mode of its use resembles that of the hydrochloric acid. When the local application of nitrate of silver is made in a solid form, care should be taken that it does not slip from the holder or break, as in such an event it might fall into the stomach. Such an accident actually happened to M. Guersant; fortunately, however, the stomach rejected it; but this might not always occur, and few medical men would be willing to take so hazardous a risk. Dr. Hauner, of Austria, considers nitrate of silver as the very best local application to the diseased surface, and advises its use in a solution of from a scruple to half a drachm, to an ounce of water. Subsequent experience did not confirm the good opinion entertained for nitrate of silver among the English practitioners, and many who were at first loud in its praises came to disuse it altogether. A substitute for this was found in the sesquichloride of iron, which is recommended by Dr. Rankin as being very efficacious in its effect upon the false membrane. He advises to use in the form of a gargle of the strength of two drachms to eight ounces of water, to be applied to the throat by means of a brush.

In the United States, opinion appears to be divided as to the best local application. Dr. Blake, of Sacramento, has found the greatest benefit resulting from an application of strong hydrochloric acid; a view in which he is sustained by Dr. Bynum and Dr. Thomas, both of whom have had much experience in the treatment of the disease. Prof. Comegys, of Cincinnati, is in the habit of applying nitrate of silver either in substance or strong solution in water. Sometimes when the ulcerations are deep, he touches them with strong nitric acid by means of a brush. In some cases he has employed with considerable benefit inhalations of tannic acid dissolved in sulphuric ether, applied by means of a cloth wetted with it to the mouth. The formula is

R Tannic Acid f ʒij.

Sulph. Ether f ʒj. M.

Dr. Jacobi, of New York, who, as physician to the Canal Street Dispensary, which treats a large number of German children, has had a very large experience, is not disposed to place much reliance on local applications, and confines them to an injection of solution of chlorate of potash or chlorate of soda, when the running from the nose is excessive, or offensive.

Alum, chloride of lime, and calomel, are sometimes recommended. When their use is deemed advisable, they may be applied by dipping a brush or the finger in the dry powder, and carrying it directly to the affected part.

When there is a considerable accumulation in the nares, and behind the velum, the debris and foul secretions may be removed, and much temporary relief obtained, by an injection in infusion of camomile with a few drops of crea-

sote, which may be best effected by a laryngeal syringe. The syringe of Dr. Warren, of Boston, answers a very good purpose for injecting fluid either into the nares or below the epiglottis. It, however, is liable to the objection that it is likely to produce irritation by coming in contact with the irritable portion exactly at the opening of the glottis, which is found by the researches of Prof. Horace Green to be the seat of sensibility, instead of the epiglottis, as has heretofore been supposed. The common glass syringe, with either a curved extremity or a straight one, dependent upon the part to be reached, answers all ordinary purposes, and possesses the advantages of being easily obtained at the apothecaries', and is of slight cost. When a local application, either of hydrochloric acid or solution of nitrate of silver is intended to be applied below the epiglottis, the best mode is to introduce a gum elastic catheter into the larynx, and inject through it the fluid, by means of a glass syringe, placed at the upper extremity of the catheter. This operation, which requires some dexterity, is effected in the following manner:—An assistant fixes the head of the patient while the tongue is depressed by the operator, until a full view of the epiglottis is obtained. The catheter is then passed gently down, until it reaches the epiglottis, over which it is passed downwards and forwards, directly into the larynx, to the point intended to be reached by the injection. Great care should be taken that the injection be not of too great strength at first. For correcting the fætor of the secretions, the chloride of soda, in the proportion of one drachm to six ounces of water, may be used with much benefit. Dr. Ranking suggests, on the supposition of the presence of some vegetable parasite, the use of sulphurous acid and hyposulphite of soda, in the form of a saturated solution. "The powder of the latter," he adds, "in destroying the fungoid growth of favus, as well as the oïdium which infests the vine, I have myself experienced, and I strongly recommend it, provided the vegetable origin of diphtheria be confirmed by further observations."

Much relief is often afforded by inhalation, especially after the second or third day of the attack. An excellent means of fumigation is to pour boiling water upon catnip, or the leaves of any similar plant, with the addition of a little vinegar; and to allow the patient to inhale the fumes, either by inclosing the head under a blanket, or by applying the mouth to a tube connected with a close vessel containing the materials from which the vapor is generated. The immediate effect of fumigation is extremely grateful to the patient. Dr. Gurdon Buck advises the addition of Labarraque's solution of the chloride of soda, in successive portions of a teaspoonful each, to the liquid used for fumigation. Mr. C. F. Holston recommends the inhalation of boiling water to which has been added a tablespoonful of chlorinated lime.

General Treatment.—The general treatment must be regulated by the type of the disease. Shortly after the appearance of M. Bretonneau's treatise, a great variety of treatment was recommended by different practitioners, all, however, with a view to arrest inflammatory action: leeches to the neck, counter-irritation especially by means of blisters, active mercurialization, and purgative medicines furnished the basis of most of the plans advised; calomel especially obtained great celebrity, and was at one time considered as the most effective remedy in arresting the progress of the disease. It was first prescribed by Dr. Conolly, who was residing at Tours, at the appearance of the disease, and was so efficient in his hands in minute doses, as speedily to find favor with the French practitioners. But whatever may have been the success attendant upon its administration at that time, it is now found to require great caution in its administration. Blisters are contra-indicated; and so far from furnishing relief, they tend to increase the danger, by assuming an unhealthy, and frequently sloughy appearance. The bites of leeches often give rise to passive bleeding, extremely difficult to arrest, which greatly reduces the already exhausted energies of

the patient. Everything, in fact, which tends to lower the powers of life, or induce prostration, should be sedulously avoided, in the type of disease which at present prevails, and certainly differs from that for which Bretonneau, Conolly, and other medical men in France, at that period, were called upon to prescribe.

The type of the disease, as it now prevails, exhibits a tendency to extreme prostration from the very beginning, and requires a tonic treatment to sustain the patient. The most effectual method of accomplishing this is by means of quinine, the various preparations of iron and steel, stimulants in the form of brandy, milk punch, and wine whey, and a generous diet consisting of beef tea, Liebig's extract of meat, and a strong decoction of coffee. Sulph. quinine may be administered in grain doses conjoined to two grains of the sulph. of iron, repeated as often as the symptoms appear to require, usually every three hours. It is well to alternate this remedy with doses of chlorate of potassa, which appears to exercise a beneficial influence upon the disease of the mouth and throat. Chlorate of potassa may be given in doses of from five to ten grains in distilled water, or a bitter infusion. Prof. Barker, of New York, advises the chlorate of potassa in doses from 3ss. to 3j. The chlorate of soda has been recommended with the same intention, but does not appear to be equally efficacious with the chlorate of potassa.

The tincture of the sesquichloride of iron has met with much favor among the English practitioners as a tonic. Dr. Ranking gives it the preference to other tonics, although he frankly admits that it matters but little which of this class of medicines is used, provided the strength of the patient be sustained. "Personally," he remarks, "I give the preference to the tincture of the sesquichloride of iron, not only from the inference drawn from the analogy of its unquestionable usefulness in the more asthenic forms of erysipelas, but also from the positive evidence of its benefit derived from the experience of several gentlemen in the country, amongst whom I may mention Mr. Dix, of Smallburg, Mr. Prentice, of North Walsham, and Mr. Cowles, of Stalham, each of which has had unusual opportunities of testing its advantages." The tincture of sesquichloride of iron may be administered in doses of from eight to sixteen drops in a little water.

Whatever may be the success or ultimate failure of this remedy, its first introduction into the treatment of this disease is undoubtedly due to Professor Thomas P. Heslop, of Queens College, Birmingham, who, after repeated trials in his own practice, brought it to the attention of his clinical class at Queens Hospital and the Medico-Chirurgical Society of Queens College. His own success appears truly astonishing. "I have given in this disease," he says, "to an adult twenty-five minims of the London tincture of the sesquichloride of iron every two, three, or four hours, and have conjoined a few drops of dilute hydrochloric acid. I have also applied daily, sometimes twice a day, by means of sponges, a solution of hydrochloric acid, but little weaker than the dilute acid of the London Pharmacopœia, and have always enjoined the regular use of weak gargles of the same acid. This, with the constant administration of stimulants, beef-tea, milk, and jellies, has constituted my treatment, and I repeat here, what I have already stated in other quarters, that since I have become aware of the value of this medication, nearly ten months, I have not lost one case." An excellent formula for administering a combination of chlorate of potassa and the sesquichloride of iron, is: chlorate of potassa, from eight to twenty grains; tincture sesquichloride of iron, ten to twenty-five drops; rose water or orange syrup, one drachm; water, four ounces. Where there is difficulty in administering medicine, the bulk may be reduced by omitting the water altogether, and increasing at pleasure the amount of syrup. The success which has attended the use of this remedy in England, warrants a careful trial of its merits at the hands of practitioners in the United States.

Where the disturbance of the secretions appears to indi-

eat the use of mercurial preparations, and they are not positively contraindicated by the depressed state of the patient, calomel may be administered in doses of one-tenth of a grain, mixed with sugar and placed dry upon the tongue. Dr. Bigelow has found this remedy valuable in the disease as it prevails at Paris, and Mr. Thompson was equally successful with it at Launceston, England. Dr. Anderson, of New York, and Dr. Briggs, of Richmond, have employed calomel with marked benefit. It is a question when calomel and chlorate of potassa are administered conjointly, whether the effects of the potassa do not entirely annul those of the calomel. Dr. Bigelow, as the result of some very recent observations, says, that although it may retard or prevent the specific effects on the salivary glands, it does not in any way modify its action upon the secretions. It may be well, however, when the effect of the calomel is important, to intermit the use of chlorate of potassa for twenty-four hours, or to alternate the use of these medicines at wide intervals between the administration of the two.

Emetics are serviceable when portions of the detached membrane are lodged in the throat without being expelled or when the disease is making rapid progress, and threatens to invade the larynx. The action of the emetic in this instance is frequently to detach the pellicle and dislodge the pseudo-membrane. At the same time that the membrane is thus ejected, the throat is relieved of the foul secretions which might otherwise be received into the stomach, to the great detriment of the patient.

But whatever treatment may be adopted, the fact should never be lost sight of that the system is laboring under the influence of a powerful and most depressing poison, and it matters but little so far as the constitutional treatment is concerned whether this poison be at first local, and afterwards disseminated through the system, or is from the beginning of a general character, and incidentally developed in the mucous membranes of the air passages. In the performance of her functions in the elimination of this poison, nature requires to be sustained, not only by the free use of the tonics already indicated, but by a liberal allowance of the most concentrated and nutritious articles of diet, in which beef-tea, milk, eggs, brandy, wine, and coffee, stand prominent. When there is difficulty in swallowing, not only these articles of diet, but quinine, may be introduced by means of injection, a resort to which should not be deferred until it is impossible to administer medicines by the mouth, but whenever the difficulty of swallowing becomes at all a prominent feature in the complaint. Injections should not be administered in greater quantities than two ounces at a time, and should be often repeated, otherwise they will give rise to a local irritation in the rectum, which will prevent their retention.

After the violence of the disease has been checked, a continuance of the tonic treatment should be persevered in for some time, not only to prevent the sequel, liable to follow, but a recurrence of the attack, which often reappears after an interval of several weeks, especially where the patient is exposed to those depressing influences which are too frequently attendant upon poverty and uncleanness.

Correspondence.

A COMMISSION OF LUNACY.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In a recent number of your valuable publication you ask, "What shall be done with the Insane?" This is a question deeply affecting to the heart of humane and benevolent citizens, and it is a subject for most serious inquiry. That the question may be answered understandingly, let us consider the amount of insanity in the single

State of New York, according to such sources of information as we have at command.

According to the State Census of 1855, there were in the State, that is in private families and in asylums established for their care, by the State, the number of 2,742; in the New York City Alms House, 597; King's County Asylum, 205; in the Poor Houses in the several counties of the State, according to the Report of the Senate Committee in 1856, 837; at Ward's Island, 74.

Total number of Insane in the State, according to Census of 1855, 4,455.

Of this number, suitable provisions exist at the State Asylum at Utica, for 472; at the Bloomingdale Asylum, for 152; at Ward's Island, 74; at the Seaman's Retreat (Insane Department), 9.

Total number suitably provided for by the State, 707.

These figures show that 3,748 insane persons are left with no other provision for their well-being than the county poorhouses, or private care. All who have any knowledge of the condition of the insane in our county poorhouses, must be deeply impressed with the necessity of better provision for their welfare. Let one read the Report of the Select Committee of our State Senate, made to the Legislature in January, 1857 (*Senate Document*, No. 9), and he cannot but feel that common humanity, as well as every consideration of right and decency, should impel us to do something effectual for the better care of this unfortunate class of our fellow beings. As the State has declined to increase its expenses for the cure and support of this class, the question at once arises what shall or what can be done for their relief? There are several methods that suggest themselves, but first of all I think our State Legislature should appoint a Commission of Lunacy, with power to first ascertain the actual number of insane persons in the State; both those provided for and all others of every character and condition; and, *secondly*, to carry out those general purposes of supervision and counsel that have been so clearly stated in your editorial remarks on the Duty of the State to the Insane.

Large as are the numbers stated in the figures of the Census of 1855, as given above, there is no doubt that the actual number of insane persons in this State very far exceeds those figures. When a special Census has shown us the actual number and location of the insane among us, then we shall be able to devise suitable means for their welfare. The practical suggestions that the MEDICAL TIMES has already made concerning this important subject are awakening attention in this section of the State; and, for one, I hope you will not relax your good work in behalf of the insane. Your efforts will be heartily seconded by our profession.

Very truly yours,

G. W. BRADFORD, M.D.

HOMER, CORTLAND CO, N. Y., January 2, 1861.

Medical News.

PERSONAL.

DR. W. W. BAXLEY, of Baltimore, at one time connected with the Medical College of Ohio, is about to remove to San Francisco, Cal.—Dr. E. S. COOPER, San Francisco, reports the successful removal of an ovarian tumor, weighing eighteen pounds.—Dr. W. H. MUSSEY, reported to the Academy of Medicine, Cincinnati, a case of death in connexion with the administration of sulphuric ether.—Dr. HALL, editor of the *British Am. Journal*, doubts the existence of diphtheria in any part of Canada, as yet.—Dr. W. MARSDEN relates (*Brit. Med. Jour.*) the case of a gentleman, residing in Quebec, who was induced to apply for treatment of a cancerous disease of the rectum, at the

"Magnetic and Healing Institute, No. 36 Bond Street, New York." The patient died in due course of time, when all the diseased structures were carefully removed at the autopsy, and in the bottle forwarded with the body to the friends, and which purported to contain the specimen, other material was substituted.—DR. R. B. BONTECOU, of Troy, N. Y., performed tracheotomy in a case of diphtheria, the patient living five days after.

DEATH.

SIR HENRY MARSH, M.D.—This distinguished physician died suddenly of apoplexy, on Dec. 1st, at his residence in Dublin, in the 70th year of his age.

EPIDEMIOLOGICAL RECORD.

DIPHTHERIA is prevailing fatally in Tompkins and the adjacent counties of Central New York; and also, to some extent, in Westchester and Rockland.

UNIVERSITY OF VERMONT MEDICAL DEPARTMENT.—The next session of this school will commence on the last Thursday of February, and continue sixteen weeks. DAVID S. COX, M.D., of this city, the Prof. of Surgery, has recently returned from Europe with a rare collection, illustrating his course.

The people of London consume annually 371,000 oxen, 30,000 calves, 1,500,000 sheep, and 30,000 swine.

A PROSPECTUS has been issued of the London and Provincial Turkish Bath Company, with a capital of £100,000 in shares of £5 each.

The tribunal of Provins, France, has condemned a somnambulist for having illegally practised medicine, to a fine of fourteen times ten francs, for having fourteen times infringed upon the rights of medicine; to pay the expenses of the process; and to pay two hundred francs damages to the local society of the doctors of the arrondissement of Provins, which had acted as prosecutors.

THE BERKSHIRE MEDICAL JOURNAL.—We have received the first number of this new medical journal. It is well printed, on good paper, and makes as favorable an appearance as our best monthlies. Thirty-eight of the forty-eight pages of this number are occupied with an interesting paper on Diphtheria, by PROF. THAYER, one of its editors. It is to be issued at Pittsfield, Mass., monthly, at \$2.00 per annum, and is edited by WM. HENRY THAYER, M.D., of Keene, N. H., and R. CRESSON STILES, M.D., of Pittsfield, professors in the Berkshire Medical College. We trust the work will be sustained both in its pecuniary and literary interests.

THE comparative anatomy of the Gorilla was pleasingly illustrated and popularly demonstrated before a large audience of ladies and gentlemen at the Geographical Society's meeting, on Thursday evening last, by Mons. R. B. DU CHAILLU, the renowned Gorilla hunter and African traveller. In a humorous, yet truly scientific way, he introduced and demonstrated to his auditors, the complete skeleton of an adult Gorilla, apparently to their entire satisfaction; that the human race is not descended from the race of Troglodites, nor the Gorilla from man. This intrepid traveller was not less successful in braving the malaria than the fierce beasts of equatorial Africa. He states that in the course of three years he took for prophylactic and remedial purposes, nearly fifteen ounces of quinia.

DIPHTHERIA IN CONNECTICUT.—The first appearance of diphtheria in Connecticut was in the town of Orange, in the spring of 1859. This town lies on the Sound, southwest of New Haven, "in an elevated situation, a remarkably healthy place, with only a sparse population." The disease appeared in March, and for a while was confined entirely to the scholars attending a select school in the village, but who were boarding in different parts of the neighborhood. Fourteen cases out of fifteen of those first attacked, proved fatal, in periods varying from six to twenty-four days. Twelve of these cases were in three families, four in each.—PROF. THAYER, *Berkshire Med. Jour.*

THE Russian medical journals have lately published several cases, illustrative of the good results of the external employment of tincture of iodine in acute superficial phlebitis.

TO CORRESPONDENTS.

I. L.—Please accept our thanks for the Meteorological Records from Iowa. We shall be glad to receive such carefully kept records from the various sections of our country, but prefer that they should be in the form of monthly averages or condensed summaries, and that they be accompanied with corresponding records of prevailing diseases. The manifest importance of such records leads us to solicit these favors from our correspondents in the several States.

COMMUNICATIONS have been received from:—

Arkansas—Dr. J. S. RASH, *Connecticut*—Drs. GEO. CRARY, S. E. FULLER, A. S. WILLIAMS, W. HYDE, Jr., S. W. SKINNER, J. W. BOLLES, N. C. BALDWIN, *Illinois*—Drs. D. McDILL, P. McLAREN, M. J. CHASE, W. M. McDOWELL, W. HUNT, H. W. JONES, *Indiana*—Dr. J. F. HIBBERD, *Iowa*—Drs. E. KIRKP, L. H. CARY, S. S. PURCELL, N. LE BUNE, H. T. BALDY, J. MOORE, *Louisiana*—Prof. AUSTIN FLINT, *Maine*—Dr. MOSES SWEAT, *Maryland*—Drs. A. & R. L. ANNAN, J. T. BATES, *Massachusetts*—Drs. A. W. THOMPSON, S. P. MARTIN, J. GREEN, N. GILMAN, S. MCLEAN, W. W. WELLINGTON, N. BARSTOW, *Michigan*, Drs. Z. RITCHER, Z. E. BLISS, L. DAVENPORT, *Missouri*—Dr. W. F. YATES, *Mississippi*—Dr. R. D. HAMILTON, *New Hampshire*—Drs. J. B. GREELEY, B. F. SKINNER, J. EMORSON, C. H. SANBORN, F. P. FITCH, H. P. BURNHAM, *New Jersey*—Dr. A. LINN, *New York*—Drs. H. R. BELLows, W. KILMER, O. W. BECKWITH, L. E. JONES, H. FOUNTAIN, L. BRIGGS, A. W. THOMPSON, A. JOLLS, J. BOARDMAN, A. O. COPELAND, J. S. MILLER, A. R. GREGOR, J. F. SCOTT, A. E. METCALFE, H. LATHROP, A. BOTTER, M. SKINNER, D. HALLOCK, H. B. SHERMAN, J. E. LOSEE, S. S. STRONG, G. A. DAYTON, W. C. SLAYTON, D. C. SPENCER, *Ohio*—Drs. R. S. MCCORMICK, B. S. CHASE, A. FOLLETT, W. F. DEAN, J. DAVIS, *Pennsylvania*—Drs. OLMSTEAD and READ, L. TURNBULL, S. H. ALLEN, J. MCCONAUGHY, *Rhode Island*—Dr. S. MOWRY, *Vermont*—Drs. W. MCCOLLUM, A. F. BURDICK, E. S. BLANCHARD, G. W. BARTON—*Virginia*—Drs. W. H. BEAMBLETT, A. E. MORRISON.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK,

From the 31st day of December, 1860, to the 7th day of January, 1861.

Deaths.—Men, 79; women, 75; boys, 119; girls, 104—total, 377. Adults, 154; children, 223; males, 193; females, 179; colored, 1. Infants under two years of age, 139. Among the causes of death we notice:—Infantile convulsions, 40; erup, 12; diphtheria, 13; scarlet fever, 30; typhus and typhoid fevers, 5; consumption, 55; small-pox, 10; dropsy of head, 15; infantile marasmus, 15; inflammation of brain, 2; of lungs, 24; bronchitis, 3; congestion of brain, 14; of lungs, 7; erysipelas, 6; hooping cough, 6; measles, 7; albuminuria, 5.

Dec. 1860 to Jan. 1861.	Barometer.		Temperature.			Difference of dry and wet bulb. Therm.		Wind.	Mean amount of cloud.	Rain.
	Mean height.	Daily range.	Mean.	Min.	Max.	Mean.	Max.			
	In.	In.	°	°	°	°	°		0 to 10	In.
30th			38	33	44	2	3	N.E.	10	.9
31st			38	22	35	2	3	N.E.	6.9	
1st	30.21	.07	26	20	32	3	4	N.W.	0	.3
2d	30.07	.34	30	24	36	3.5	5	N.W.	4	
3d	29.57	.51	33	32	35	3	4	N.E.	9.4	
4th	29.88	.44	30	26	35	2	4	N.W.	7	
5th	30.18	.14	30	26	34	4	5	N.W.	.05	

REMARKS.—30th, rain P.M.; 31st, snow early A.M., clear P.M.; 2d, cloudy P.M.; 3d, rain A.M.; 4th, overcast and light snow A.M., clear in the middle of the day and late at night. Wind mostly light during the week.

MEDICAL DIARY OF THE WEEK.

Monday, Jan. 14.	{	New York Hospital, Dr. Peters, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Thomas, half-past 1 P.M.
Tuesday, Jan. 15.	{	EYE INFIRMARY, Diseases of Eye, 12 M.
		New York Hospital, Dr. Halsted, half-past 1 P.M.
Wednesday, Jan. 16.	{	EYE INFIRMARY, Diseases of Ear, 12 M.
		OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
Thursday, Jan. 17.	{	BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
		EYE INFIRMARY, Operations, 12 M.
Friday, Jan. 18.	{	New York Hospital, Dr. Smith, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Sayre, half-past 1 P.M.
Saturday, Jan. 19.	{	N. Y. ACADEMY OF MEDICINE, half-past 7 P.M.
		OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
	{	New York Hospital, Dr. Peters, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Elliot, half-past 1 P.M.
	{	New York Hospital, Dr. Halsted, half-past 1 P.M.
		BELLEVUE HOSPITAL, Dr. Church, half-past 1 P.M.
	{	EYE INFIRMARY, Diseases of Eye, 12 M.
		BELLEVUE HOSP., Dr. Wood, half-past 1 P.M.
	{	OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
		New York Hospital, Dr. Smith, half-past 1 P.M.
	{	EMIGRANTS' HOSP., WARD'S ISLAND, Dr. Carnochan, 3 P.M.
		EYE INFIRMARY, Diseases of Ear, 12 M.

Original Lectures.

A LECTURE ON UNAVOIDABLE PARTURIENT HEMORRHAGE; OR, PLACENTA PRÆVIA, BEING ONE OF A COURSE ON THE COMPLICATIONS AND SEQUELÆ OF LABOR.

DELIVERED IN
THE UNIVERSITY MEDICAL COLLEGE, N. Y.

BY
T. GAILLARD THOMAS, M.D.,

LECTURER ON OBSTETRICS IN THE UNIVERSITY MED. COL., N. Y.

GENTLEMEN: When the impregnated ovum, after having made its way down the fallopian tubes, falls into the uterine cavity, it is covered over by a tufted membrane called the chorion, which thus constitutes the shell of the foetal ball. This coming in contact with the thickened and congested uterine mucous membrane adheres thereto, and increasing in size, becoming vascular, and taking upon itself the duty of aëration of the foetal blood, receives the name of placenta.

This organ may be attached either to the fundus or the sides of the uterus as low down as the os internum, the influences which cause it to select one or the other part being entirely unknown to us. Should it take its origin from the fundus or sides of the organ, the foetus may at full term be expelled by the uterine efforts without its being disturbed; but should it be attached over or near to the cervix, the necessary dilatation of that part which must occur before the body of the child can pass, is almost sure to detach a portion of it and thus give rise to hæmorrhage. This unfortunate location of the placenta has received the name of "Placenta prævia."

As was stated at our last meeting the terms Placenta prævia and unavoidable hæmorrhage are used synonymously, the former appellation signalizing the site of the badly placed organ, the latter the dangerous and almost inevitable complication which must result therefrom. By some authors these cases have been classed among mal-presentations under the name of "presentation of the placenta," an arrangement which has been adopted in the work of Dr. Tyler Smith, which I have recommended you as a textbook. This I think is incorrect, for the term presentation is universally accepted as the "part of the *foetus* first appearing at the os uteri in labor," and in no wise refers to any of its annexæ. Besides, we may have all of the evils of this condition when the placenta is so high up as to be out of reach, and some part of the child having passed by it occupies the os.

The literal signification of the term Placenta prævia, and that which answers the best purpose practically, is that the placenta is placed "præ via," before the way, and not as it should be in such a position as not to obstruct it; and the synonymous term "unavoidable hæmorrhage," arose from the fact that even very old writers recognised the truth that such an attachment would necessarily result in that complication.

History.—Guillemeau, a pupil of Paré, Mauriceau, Paul Portal, Peau, De la Motte, Daventer, and many others, evidence such knowledge in their writings. All of them, however, with the exception of Portal, made a singular error in reference to this point, in supposing that the placenta was always originally attached to the upper part of the uterus, and had fallen from its place to the neighborhood of the cervix.

The acute perception of the gifted Portal did not allow him to fall into this mistake, and his views were subsequently adopted by Giffard and Roederer; but to Lerret, who wrote in 1756, belongs the credit of giving a full interpretation of the condition. At a later period, Dr. Rigby, of Norwich, Eng., availing himself of the knowledge thus

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made accessible, pointed out some important distinctions between the varieties of parturient hæmorrhage, which have resulted in the improved and rational modes of treatment which will engage our attention to-day.

Exact Location of the Placenta.—To this part of our subject I feel anxious to direct your special attention on account of its importance in a pathological point of view, and because I am led by careful reflection to conclude that most of the obstetric writers whose works are made accessible to the American student have promulgated views upon it which are erroneous. I say this with all respect, for I do not imagine these writers to be at all ignorant of what I am about to tell you; but the point appears to have escaped attention, and the error of one has been reproduced by the others until it has become as general as the following quotations will show.

"The cause of the hæmorrhage is evidently the separation of the placenta from the cervix uteri." *Churchill Obst., Am. ed.*, p. 437. "If the feet present with only a partial implantation of the placenta or with it coming to the margin of the os uteri only." *Ibid.* p. 438. "If the placenta be partially attached over the os uteri it is generally upon the anterior lip, which is much thicker." *Rigby Obst., Am. ed.*, p. 346. "Under ordinary circumstances this effusion of plastic lymph has already attained such a degree of firmness and coherence as to prevent the ovum from passing beyond the uterine extremity of the Fallopian tube from which it has emerged; but in cases of placental presentation it may be presumed that at this period the decidua was still in a semi-fluid state, had formed little or no attachment to the walls of the uterus, and had therefore no effect in preventing the ovum gravitating to the lower part or even to the mouth of the uterus itself." *Ibid.* p. 345. "The placenta may be attached over the whole of the os and cervix uteri, or it may be implanted over some part of the margin of the os so as only partially to occupy the aperture. The causes of Placenta prævia have not been determined. It is probably produced by the impregnation of the ovum after it has descended to the upper part of the cervix uteri. This being the last point at which the ovum retains its capability of impregnation and attachment to the uterine surface." *Tyler Smith Obst., Am. ed.*, p. 428. "We shall know the placenta by the fleshy fibrous and lobular sensation which it communicates to the finger, and by its being attached to the inner surface of the cervix uteri." *Ramsbotham Obst., Am. ed.*, p. 375. "I mean that case which depends on the situation of the placenta happening to be on the cervix and os uteri." *Meigs Obst.*, p. 429. "The attachment of the placenta to the mouth of the womb is one of the most dangerous complications to be met with in the practice of midwifery." *Collins Obst.*, p. 59.

These quotations are sufficient to convince you of the opinions of British and American writers, and the statement which I made above applies only to them, the French and Germans not partaking in their error. Now, I feel sure that in no case is the placenta ever attached to any part of the cervix or os uteri, that the walls of the cervical canal are always free, and that it is felt at the os and projecting a little over it only after having been detached from above. As I have not space to give a full exposition of my reasons for such an opinion, I will give in as short a space as possible the chief grounds upon which it is based.

1st. The placenta is formed from the development of foetal tufts and decidua; there are neither decidua nor utricular glands in the cervix, and hence no placenta can form there.

2d. It was formerly believed that as the uterus developed above, the cervix gradually disappeared by being spread out until its canal was merged into the uterine cavity and the whole became almost globular in shape. In 1826, Dr. Stolz, of Strasbourg, pointed out the fact that the cervix does not thus spread out and disappear, but that it does so by an entirely different process altogether independent of that of the uterus.

The view advanced by Stolz was, that as the cavity of the

body of the uterus enlarged above, so did that of the cervix below, but that this cervical expansion begins at the os externum uteri and extends up to the os internum. Thus at the third month the upper part of the cervical canal is entirely closed, but at its lower portion a slight dilatation has begun which will admit the pulp of the index finger. This goes on extending upwards towards the os internum, until at or about the end of the ninth month the entire canal is so open as to admit the finger its whole length. Then the painless uterine contractions which come on at that time cause the dilated canal to spread out, the os internum disappears, the child's head descends to the os externum, and all is prepared for the parturient effort which is soon to occur.

Now, if this is true (and I am fully convinced that it is) it is evident that such a thing as attachment of the placenta to the walls of the cervical canal is utterly impossible.

You may ask, however, why I deem this to be the correct view. I deem it so from having repeatedly examined pregnant women per vaginam with reference to the point, and from the fact that two post-mortem examinations made by me have substantiated it. So much for my deductions from personal observation. I also regard it as correct, because the profession in those countries where the greatest facilities for observation exist are almost unanimous in that opinion. In France, classes of medical students are formed for the purpose of practising what is called the "toucher" or touch by the vagina under the supervision of a teacher. A number of women in different periods of pregnancy are ranged around the room (*à la mode des compas*), and one after the other the students examine by the vagina and endeavor to determine the fact and period of pregnancy. Such opportunities for determining the point about which we are speaking are offered in few other countries; now, is it probable that the profession enjoying them should be in error? Is it not highly probable, to say the least, that they would correctly determine the point, when *such a business* is made of one of the most reliable means for establishing the truth with reference to it? My impression is, that almost all the latest French authorities entertain the view of Stolz.

3d. That the part of the placenta which is found at the border, and sometimes even beyond the border of the os, has been separated, has slid down into this position, and is not attached there, is evidenced by the fact that the finger of the obstetrician will, when examining, always detect a separation for a certain distance from the os externum. Examine Hunter's 12th plate, showing placenta prævia, and you will see in his description of it that he is particular to mention the detachment of the placental mass over the cervical surface, although he believes that it was formerly there attached, and that its separation was the result of dilatation of the parts.

This in great part accounts for the view of the older writers—that the entire organ had fallen from its attachment at the fundus. All that part of the placenta which they touched was detached, and they argued *ex parte dice omnem*. Had it been otherwise could such men as Guillemeau, Mauriceau, and others, have been led into the error which they adopted?

The cervical attachment of the place, then, I believe to be imaginary, and regard that organ as attached under these circumstances to the segment of the uterine body, just above the cervix, and perhaps covering entirely the os internum.

Varieties.—If it be attached to any part of the lower segment of the uterus, the case is one of placenta prævia. It is, however, evident that the extent of the dangerous attachment must vary in different cases: thus, in one, only the edge of the organ may encroach on the forbidden ground; in another, the whole of one side of the segment may be covered; while in a third, the whole circumference of the segment just above the cervix, that is, just upon a level with the os internum uteri, may give attachment to it, and thus hanging like a veil across the uterine canal it entirely seals it up. The two first of these cases

would be styled partial, and the latter complete placenta prævia.

Frequency.—There is no class of cases in the whole range of abnormal labors which causes in the mind of the obstetric practitioner the same apprehension and anxiety (I may almost say dread) as this, for so environed are they by dangers for both mother and child, so entirely unavoidable are these dangers, even under the best management, that the attendant, so far from being hopeful of gaining credit or experiencing satisfaction from their results, is generally happy to compromise with the rescue of only one life, and thus feel secure from complete discomfiture.

I would not be understood as stating that all hope of conducting such labors safely for both mother and child is to be discarded, but I wish you thus early to appreciate their extreme gravity and consequent importance; a conviction of which will surely come when you examine the statistics which tell of the mortality which attends them. Such being their nature it is most fortunate that they are of rare occurrence.

In 16,414 deliveries, Dr. Collins, of the Dublin Lying-in Hospital, met with only 11 cases, which at a rough estimate would give us a proportion of about 1 in 1,500; according to others, however, it is supposed to occur as often as 1 in 500, which is just about half as frequent as face presentation, prolapse of the funis, and transverse presentation.

Mortality.—As the statements of authors differ with reference to the frequency of the occurrence, so do they as to the mortality of this complication. Perhaps the most reliable statistics at our command are those of Dr. Simpson, of Edinburgh, who from a table composed of 399 cases, concludes that one in every three of the mothers has perished, which gives a mortality equal to if not greater than that of cholera, or yellow fever, in their most malignant forms.

Of the children, over one-half, indeed about two-thirds, are supposed to be lost. What more can be needed to convince you of the necessity for a close investigation of this subject before entering upon the course of life which is, in connexion with it, to invest you with so great responsibility?

Reasons for the fatality of placenta prævia.—There must be, of course, some good reason why, in spite of all the resources of our art, so terrible a mortality should still be recorded. It is this: the very process by which nature accomplishes the delivery destroys both mother and child, or to make it clear by successive propositions:

(a) *The child must sooner or later be expelled.*

(b) *For this to occur the cervix and lower segment of the uterus must dilate.*

(c) *Should they do so the placenta will be detached, and hemorrhage occur.*

As each succeeding uterine contraction dilates the cervical canal little by little, so does each tear off the constricting placenta portion after portion; and as each detachment weakens the woman, and injures the powers of the placenta, so does each increase the dangers for mother and for child, until, after a period varying according to circumstances, the foetal heart ceases to beat, and the exhausted mother sinks into a profound collapse. Her death is of course under these circumstances due to loss of blood; but should she even by the assistance of art overcome this danger, others scarcely less imminent await her. When the placenta has a præ-cervical attachment, the blood-vessels of this part of the uterus are immensely developed, and these being bathed by the lochial discharge which follows delivery, are very apt to take on the diseased action known as phlebotic inflammation, a condition which you know is most perilous to life. But again, when art comes to nature's relief, she generally does so by the operation of version, which often results in rupture of the cervical structure, which is very liable to give rise to dangerous post-partum hemorrhage, or to inflammation of the surrounding part.

Lastly, even if the performance of the operation of ver-

sion should ward off death by hemorrhage, and should itself result in no laceration of the cervix, it may destroy life by the shock which it produces.

You perceive then, that the sources of death to the mother are numerous and palpable, and at once surprise at the maternal mortality begins to diminish. To give them at a glance, they are:

- 1st. Exhaustion from hemorrhage.
- 2d. Puerperal metritis.
- 3d. The occurrence of post-partum hemorrhage.
- 4th. Exhaustion from the "shock" of version.

There are only two sources of danger to the child, but, alas! these are prolific in results. It may die from asphyxia, the placenta being incapacitated to perform the function of aeration of its blood. The sanguineous system of the child does not furnish any of the material for the hemorrhage, as is sometimes thoughtlessly supposed; its vessels are shut off from those of the mother and are unbroken, but those of the mother which should bathe them and aerate the blood which they contain are ruptured, and the entire respiratory function of the placenta is impaired in consequence.

How much of a loss either mother or child will sustain, of course cannot be estimated, for a flow which would speedily affect and perhaps destroy a weak individual of either class, would not seriously inconvenience one of more robust constitution. When, however, a severe loss of blood has occurred from the placenta before delivery, always make a guarded prognosis as to the child's safety, for children often die from a surprisingly small amount of hemorrhage.

When the woman dies from hemorrhage it is generally from repeatedly recurring gushes, consequent upon successive placental discs being detached; but this is not always so, for sometimes a terrible and unexpected flow occurs which destroys life almost instantaneously, and this too from a detachment of a very small portion of the placenta. Thus Dr. Hamilton relates a case of death from hemorrhage where less than one square inch of placenta was found by post-mortem examination to be detached. In these cases probably some large vessel (perhaps the circular sinus of Meckel and Jacquemin, which passes around the circumference of the organ) has been opened into or broken across.

Symptoms.—The symptoms by which this unfortunate state of things will show itself are these: during the last month of pregnancy the physician will be sent for very hurriedly by his patient, who will inform him that she has, without any assignable cause, such as a blow, fall, or effort, had a discharge of blood. Without much trouble this will be controlled, or has ceased before his arrival, and he leaves her. In eight or ten days this is repeated, perhaps during sleep, or while sitting quietly, and thus it continues at varying intervals to recur until the period of parturition.

In other cases no flow occurs until this time, and then it is observed to take place with each uterine contraction, and to cease almost entirely as it passes off. The flow which occurs before labor is due to development of the inferior portion of the body of the uterus, which in the last months develops more rapidly than the placenta, while that occurring during labor is produced by active dilatation of the cervical canal. In a case thus complicated a diagnosis must be made by the touch, and for this purpose let the entire hand be passed into the vagina, and the finger into the cervical canal, if the introduction of the finger alone into the vagina is not sufficient, which will often be the case when the placental attachment is high up.

The means of differentiating unavoidable from accidental hemorrhage were so fully given at our last meeting that I will not further refer to them here, than to state that the three main diagnostic signs are, the occurrence of hemorrhage before labor, its existence during and absence after a pain, and the discovery of the placenta by the touch.

Natural history of placenta prævia.—The course of cases of this complication left to nature, and entirely uninterfered with by art, varies somewhat; as a general rule, how-

ever, the hemorrhage continues until the woman, exsanguinated and exhausted, falls a victim to the unchecked drain before the delivery has been accomplished. Indeed, in a grave case, unless one of four propitious circumstances should interpose, there would be no reasonable grounds for hoping that the life of either mother or child would be preserved. The occurrence of one or more of them, however, sometimes averts the unhappy issue, and, in spite of the unfavorable nature of the circumstances, preserves the lives of both. Let us investigate the means by which nature, unaided, sometimes accomplishes what art so often fails to effect.

1st. The presenting part of the child may be so forcibly driven against the bleeding surface that its vessels are mechanically closed, and the labor allowed to continue without further loss.

2d. That part of the placenta attached nearest the cervix is gradually detached, while that adhering to the body above is left in place. The vessels of the placenta become plugged by coagula, while those of the uterus are closed by contraction of its fibres, and hence the flooding ceases, and as no further placental detachment is requisite the labor progresses without danger.

3d. The labor may be so rapid that in spite of the hemorrhage which accompanies it a safe delivery for mother and child is accomplished.

4th. The entire placenta may, by the violent efforts of the uterus, be detached and cast out of the vagina, when, as experience has taught us, the flow will generally cease entirely.

The mode of action of two of these processes in effecting the desired end is so evident that they will need no explanation: that of the second and of the fourth, however, involves a few words upon the nature of the hemorrhage in placenta prævia. In a former lecture I mentioned that a great deal of discussion had occurred in reference to the surface, the vessels of which furnish the blood which is lost in uterine hemorrhage; some maintaining that it escapes from those on the face of the placenta (those on the uterine face being closed by muscular contraction), while others (constituting the majority) supported the view that very little had this source, and that the great mass comes from the uterine vessels before contraction of that organ can effect their closure.

It would here be out of place for me to enter into this discussion, and I will merely state that my own conviction is that from both surfaces, uterine and placental, flooding occurs, but that by far the most obstinate and dangerous loss arises from the former.

When the placenta is placed over or near the cervix, the first uterine effort detaches a portion, generally of considerable size, and instantly a gush takes place from the severed vessels of the uterus and placenta. So soon, however, as a firm tonic contraction has occurred in the uterine fibres, the vessels of that organ are ligated by them, a slight flow from the spongy placenta still continues, but (as is clearly shown by examination of that organ after expulsion) clots soon form in the vascular mass and check the discharge. The next contraction, however, separates still more, another set of vessels are broken across, and another gush takes place. This, like the preceding one, soon ceases, to be again excited by another uterine effort, until at last the birth is accomplished, or, as is more likely, the patient, if unaided, dies exsanguinated and exhausted. So long as the placenta remains in part attached over or near to the cervix, these successive separations and consequent hemorrhages will occur, and nature is possessed of two means for obviating the continuance of this dangerous condition—she either separates that portion of placenta attached nearest the cervix, leaving that above still adherent, or by a powerful effort throws the entire placenta from its place, and casts it loose into the uterus or vagina. The second of the means by which she exerts her vis medicatrix has long been known; the recognition and enunciation of the first, in 1844, has inscribed the name of Dr. Barnes, of London,

on the page which shall henceforth describe the treatment of placenta prævia, by the side of those of Portal, Levret, Rigby, Wood, and Simpson.

These are the means by which nature may conduct these distressing cases to a happy issue, but these are all, and should one of them not be spontaneously brought to her aid, the death of mother and child would soon occur unless she were succored by art.

Indications for Treatment.—Let us at this point briefly examine some of the data of our subject. It is necessary that a bulky body should pass through a gateway, the opening of which is as necessarily accompanied by danger; what are the means by which the passage may be safely accomplished? I know of but two, first to hurry the passing body through as rapidly as possible, so as to curtail the duration of the dangerous agency as much as possible; second, to remove the element of danger or quell its activity, so that the gateway may be slowly and safely opened. This is a homely illustration, but on that very account will answer my purpose. Applying it directly to our subject, you will readily agree that the indications are—

1st. To deliver the child as soon as possible, and thus prevent the necessity for *gradual* dilatation of the os and cervix, or

2d. To alter the state of affairs at the cervix so that gradual dilatation may go on without producing hemorrhage.

On these two principles hang all the methods by which nature rescues the patient from impending death; on these two precepts depend all the reliable methods of treatment ever devised for her assistance by art; in treatment we only imitate nature by developing one or more of the principles which she has pointed out to us.

The speedy delivery which the great vigor of the uterus sometimes accomplishes, we effect by version (or the forceps, should they be applicable, as is rarely the case); closure of the bleeding vessels by direct pressure, we produce by artificial evacuation of the liquor amnii; and partial or complete separation of the placenta, we imitate by two methods which I will now proceed to mention.

The first is that advised by Dr. Barnes, who, in 1857, recommended the practice of separating by the finger only that part of the placenta attached to the cervix, and leaving that attached above this point still adherent. All that separation, which must necessarily occur to admit of the passage of the child, is thus accomplished at once; succeeding uterine efforts do not affect that portion attached to the body; and tonic contraction of the uterine fibres closing the open vessels of that organ while coagula do the same for those of the placenta, the labor may proceed without further loss or assistance.

Dr. Barnes supports this practice by abundant clinical facts, and although my own experience with it is very limited, I do not hesitate to recommend it to you as a means in every way calculated to prove highly advantageous and preservative to life. The second method consists in the detachment of the entire placenta before the birth of the child. This practice was recommended, according to Tyler Smith, first, by Dr. Chapin, of Amherst, subsequently by Kenderwood and Radford, of Manchester; and lastly, falling into the able hands of Simpson, of Edinburgh, has been illuminated by his powerful genius, and now stands a well recognised and most useful aid in contending against these fatal cases. One objection to it, of course, is, that it almost entirely cuts off the child's chances for life; but unfortunately in many of these cases, so grave are their consequences that this is a matter of secondary consideration, and it will often answer a most excellent purpose.

In my last lecture, in speaking of the treatment of accidental parturient hemorrhage, I admonished you of certain principles which should be developed, and advised you to resort to the simplest; first, find out whether this would not be effectual, and if not, pass on to those which are more efficient. In the treatment of placenta prævia such counsel would be dangerous, for as there are surgical hemorrhages

in which it would be futile to tamper with styptics, pressure, &c., but would be necessary to resort at once to the ligature, so here the cases are too grave to admit of temporising, and only a most powerful means can be relied on. The methods of treatment, by which, as I have told you, the obstetrician is enabled to imitate the preservative actions of nature, are these:

1st. Version.

2d. Partial separation of the placenta.

3d. Complete " " "

4th. Rupture of the membranes.

5th. The tampon, if forced to wait.

To leave a clear and distinct picture upon your minds of the circumstances which will demand one or the other of these, I will suppose two cases, one of a very grave character, the other accompanied by no very alarming flooding or other unfavorable symptoms. Let me remind you, however, that the majority of cases will represent grades between these extremes, and will require modifications of the rules given for them which nothing but the judgment of the practitioner can determine.

Management of a Case of Grave Character.—In a case of placenta prævia accompanied by serious hemorrhage, no time is to be lost in trying the lesser means, but delivery should be accomplished as soon as possible. Should the patient's strength be sufficient to bear the operation, the child be living, and the os uteri dilatable, turn without delay.

Should her exhausted state, or the death of the child, render the operation in the first instance too hazardous, in the second useless, as far as the infant is concerned, we are prevented from resorting to the first indication which suggests itself, and betaking ourselves to the second, separate a part or the whole of the placenta; a part if it is found sufficient, the whole if it is not.

If a rigid state of the os prevents us from turning a child which is still living it would be well, if the woman would bear a further loss, to await the time when that part will dilate before separating the placenta and destroying all the chances of the fœtus for life. While doing so, however, it is well to place our patient as much as possible out of danger, and to hasten the period for which we wait. To that end partial separation of the placenta should be effected, and a sponge saturated with a solution of the perchloride of iron placed against the os and kept there by filling the vagina with a tampon or plug, which accomplishes in itself both objects. Better still than a tampon the instrument called the *colpeurynter* might be used, or in place of it a hog's bladder tied to the end of a self-supplying syringe, introduced in a collapsed state into the vagina and then filled with water, may be employed. But remember this is only temporising, and that it merely prepares the way for the fulfilment of an important indication which it by no means effects itself. Thus you see that after all, the principles of treatment narrow themselves down to these—first, to deliver at once; second, to wait until the state of the parts will allow you to do so; third, to so alter the state of affairs at the outlet of the womb that the natural expulsion of the child may occur without danger.

You observe that in certain cases you will have to decide between complete separation of the placenta and version, while partial separation may be tried in any case. These are the circumstances which should determine your choice.

Version is preferable.

Separation of placenta is preferable.

When the child is living.

When the child is dead.

At full time.

Before full term.

When patient's strength is good.

When patient is exhausted.

When the soft parts are dilatable.

When the soft parts are rigid.

When pelvis is not deformed.

When pelvis is deformed.

In multiparæ.

In primiparæ.
During epidemic of puerperal fever.

It has been objected to separation of the placenta in cases where the soft parts are rigid, that if the hand can be introduced for that procedure, version would be practicable. This is not, I think, without reason; but in certain cases two fingers will be sufficient to detach the after-birth, and even if it required the whole hand it would be much less dangerous to stretch a doubtful os for its admission to the wrist than for the introduction of the entire forearm and subsequent extraction of the child.

There are, I would have you particularly remember, few points to be decided in the practice of obstetrics which call for a greater amount of judgment in their decision than the period at which version should be performed in placenta prævia, and there can be no question as to the fact that its decision will often determine the fate of the patient. If, on the one hand, it is performed too soon, a laceration of the unyielding os may take place, and the woman be exposed to the great risks of post partum loss from the immensely developed vessels at the placental site, as well as to those imminent ones of phlebitis; while, on the other, if too long delayed, her forces will become so exhausted that the shock of the operation will produce death. Thus like the pilot whose difficult task it was to sail between Seylla and Charybdis, the obstetrician must keep these two dangers ever before his eyes in solving this delicate problem, the importance of which may be estimated from a statement of Dr. Simpson, that nearly the same proportion of women appears to perish from one as from the other set of troubles.*

And while upon this subject it will be well for me to guard you against a very prevalent error that, whenever version is called for by the loss of blood attending placenta prævia, this loss will itself render the parts yielding and dilatable, an error which has received the sanction of no less a name than that of Francis Denman. For that very reason it should be refuted; and to do so I will merely refer you to the positive assertions of Drs. Davis, Hamilton, Simpson, Ramsbotham, and Lee; and to show you how important the fact of the danger of forcing a rigid os, even when death is at hand, has been deemed by some of our most reliable guides in practice, I will read from Drs. Pea and Collins. The first remarks that, "to force and dilate the internal orifices of the womb is just so many deaths produced;" and the second, "I know of no circumstance so much to be dreaded as the forcible introduction of the hand where the parts are in a rigid or unyielding state." All this applies especially to primiparous women, in whom the parts are always more rigid and liable to laceration than in multiparæ.

Management of a Case of Placenta Prævia unaccompanied by Grave Symptoms.—In case hemorrhage is very slight, and there is no cause for immediate apprehension, there is no necessity to resort to means which carry danger with their efficiency, but temporising judiciously (and never losing sight of the patient while doing so) the obstetrician may resort to minor means first. Thus, if the placenta is placed laterally, the membranes may be ruptured in the hope that pressure from the child's presenting part may check the flow. Should this fail, Barnes's method should be employed, or they may be used conjointly; after which, should the flow continue so as to require aid, version should be resorted to, under the restrictions mentioned just now; or, if the head is within reach of the forceps, they should be employed instead.

As already stated, in the performance of Barnes's method and entire detachment, the hand must be introduced entirely into the vagina, and the fingers into the os. Should the state of the os not permit even this, of course plugging the vagina and waiting would be all that we could do.

Should the placenta be placed directly over the os, and so obstruct it as to preclude the determination of the position of the child by the touch, determine this as well as you can by palpation of the abdomen, and by auscultation of the foetal heart. If from such a cause you are forced to turn without knowing the position, always do so with the

left hand, as the occiput is much more commonly directed to the left acetabulum than to any other part of the pelvis, and that hand would be applicable to such a case. In passing the placenta, thus obstructing the os, do not waste time in breaking through that mass, but slip the hand between it and the uterine surface.

Before leaving this important and very interesting subject, gentlemen, I will give you at a glance the various modes of treatment adapted to special cases, which will be recapitulatory of the whole of the foregoing remarks upon treatment.

A SYNOPSIS OF THE TREATMENT OF PLACENTA PRÆVIA WITH COPIOUS HÆMORRHAGE.

- | | |
|--|--|
| 1st. Os dilatable and woman not exhausted. | { Deliver immediately by version or the forceps. |
| 2d. Os dilatable and woman exhausted.* | { Detach a part of the placenta, and should this not be sufficient, the entire organ; apply styptic, and stimulate. |
| 3d. Os rigid and woman not exhausted. | { Detach the portion of placenta nearest cervix, and, if necessary, apply styptic and tampon, or colpeurynter. |
| 4th. Os rigid and woman exhausted. | { Detach part or whole of placenta, apply sponge saturated with perchloride of iron, and support strength by stimulants. |

Those modifications which should be made in these rules when the hemorrhage is slight have been already sufficiently stated.

CLINICAL LECTURES.

DELIVERED IN THE N. O. CHARITY HOSPITAL

BY AUSTIN FLINT, M.D.,

PROF. OF CLINICAL MEDICINE AND MEDICAL PATHOLOGY, IN THE N. O. SCHOOL OF MEDICINE.

LECTURE III.

DISEASE OF THE HEART AND EPILEPSY.

(Concluded from page 24.)

This venous pulse is, of course, caused by the heart's action. Now, is it caused by the contraction of the right auricle or the right ventricle? It must be caused by one or the other, because the jugular vein is in direct communication only with the right side of the heart. Clinical observation shows that it may be produced either by the right auricle or the right ventricle. Can we determine which? Nothing is easier. If produced by the contraction of the right ventricle, it must seem simultaneously or nearly so with the carotid pulse, because the two ventricles contract synchronously; but if produced by the contraction of the auricle, it should occur just before the carotid pulse, because observation has taught us that the auricles contract just before the contraction of the ventricles. I have only then to place my finger on the carotid and watch the venous pulsations in order to determine the relation to each other in which they occur. I satisfy myself that the venous pulsation just precedes the carotid pulse—a conclusion which I had not expected, because, from the strength of the latter, I had thought to have found it produced by the ventricle. It is, then, an auricular venous pulse. I have known both an auricular and a ventricular venous pulse to be present, and in this case, on close examination, I can perceive occasionally a slight undulation occurring simultaneously with the carotid pulse, and this I suppose to be due to the contraction of the right ventricle.

What is the significance of this auricular venous pulse?

* By the term "exhausted," I mean to signify that the patient's state is such as to render operative procedure dangerous.

It shows that the right ventricle is distended, so that when the auricle contracts, the blood, not finding ready entrance into the ventricle, regurgitates into the large veins opening into the auricle. A ventricular venous pulse would show regurgitation from the right ventricle into the auricle when the ventricle contracts.

It is interesting to see how the condition of the right cavities of the heart, as indicated by the pulsation and fullness of the veins of the neck, harmonizes with certain symptoms in this case. The right cavities are overdistended with blood, arising, as we may rationally infer, from obstruction at the mitral orifice. This induces congestion of the systemic venous system generally. Hence, we have in part an explanation of the lividity or cyanosis to which I have called your attention. And it is this venous congestion, in a great measure, which has induced the general dropsy which we have seen to exist in the case. This latter symptom has occurred in accordance with a general law pertaining to cardiac disease, viz. it takes place, whenever in the progress of the disease, the right cavities become permanently so distended as to involve a considerable obstacle to the return of blood to the heart, and consequently a certain amount of venous congestion. The dropsy arises from the mechanical distension of the veins, although other circumstances, such as the condition of the blood itself, for example, may contribute to it.

I have not yet spoken of the pulse in this case. This symptom is significant. It is extremely small and weak. The radial artery feels under the finger like a thread, and the carotid is not readily felt. The contrast between the venous and the arterial pulse in the neck is striking. We can readily account for this state of the arterial pulse, by supposing the existence of considerable mitral obstruction. This obstruction, while it leads to over-repletion of the left auricle, and the right cavities of the heart, prevents the left ventricle from receiving a proper supply of blood. The small quantity of blood expelled by the left ventricle with each contraction, necessarily involves smallness and weakness of the pulse. The pulse, under these circumstances, also, is apt to be irregular and unequal.

I will now dismiss the patient, and then offer a few remarks further on the case.

The prognosis, I need hardly say, is unfavorable. There is but little prospect that, as regards the affection of the heart, the patient will be benefited. I shall prescribe a hydragogue cathartic with a view to diminish somewhat the water in the blood, and thereby perhaps relieve the general dropsy. It is doubtful, however, whether this object will be fulfilled. After this the indications will be to place the patient on a solid, dry, nutritious diet; to endeavor to increase the vigor of the heart's action, by tonic remedies; to keep the bowels open, and maintain free action of the kidneys. All that we can hope to accomplish is to postpone the fatal termination. But the probability is that, whatever measures are pursued, the dropsy will increase, and the case will end fatally at a period not very remote.

This patient furnishes us with an example, not only of organic disease of the heart, but of another serious affection, viz. epilepsy. He states that he has been subject to epileptic fits for the last three years, and that they have occurred sometimes after an interval of a month, and sometimes every two weeks. I suppose most of you are acquainted with the phenomena which characterize epileptic paroxysms. The diagnostic points of the form usually met with in practice, are the sudden occurrence of coma and convulsions, sometimes preceded by certain sensations which warn the patient of the approach of a fit, and sometimes without any warning; a cry, generally uttered at the moment of the attack, which is sometimes remarkably loud and piercing; clonic convulsions, often extremely violent, extending more or less over the body; spasm of the laryngeal muscles, occasioning difficulty of breathing, and consequently, congestion of the face and lividity; convulsive movements of the masticatory muscles, in consequence of which foamy saliva escapes from the mouth; thrusting

of the tongue between the teeth, and wounding of that organ, which causes blood frequently to be mixed with the foam on the lips. The paroxysm lasts usually from three to five minutes, when it passes off, leaving the patient more or less fatigued, frequently disposed to sleep, sometimes in a condition approaching to coma, and occasionally delirious. These are the characters by which an epileptic paroxysm is to be distinguished. We have no difficulty in recognising the affection when we have the opportunity of witnessing the attack; but it will very often happen that we have not this opportunity. The patient, or the friends, simply tell us that he is subject to epilepsy; and in order to be assured that the fits are epileptic we have to obtain enough of the history to ascertain whether a sufficient number of the diagnostic characters are present. The friends may be able to furnish this information, but the patient cannot, for he is wholly unconscious of what occurs during the paroxysm. He only knows that he has had a period of unconsciousness, and he may not even know this when, as not unfrequently happens, the attack occurs during the sleep. When we have no other source of information than the patient's statement, we can often confirm it by an examination of the tongue. This organ is apt to be wounded by the convulsive movements of the masticatory muscles, so severely as to leave permanent marks of the injuries it receives, in the shape of fissures, which are the cicatrized wounds. In this case, having at first only the statement of the patient, I was led to examine the tongue, and the dorsal surface presented several fissures, which showed the statement to be correct. But the fact was substantiated by the occurrence of several paroxysms a few days after his admission.

Has the epilepsy in this case any pathological connexion with the disease of the heart? I suppose not; for out of a pretty large number of cases of disease of the heart which I have collected, I do not recall another instance in which epilepsy existed. It has been surmised that the paroxysms of epilepsy conduce to the development of hypertrophy and dilatation of the heart; but clinical observation does not furnish facts confirmatory of this surmise. In this case it is altogether probable that the disease of the heart preceded the development of epilepsy, although the latter disease appeared before the patient began to experience inconvenience from the former. In view of the infrequency with which the two affections are found to be associated, we must conclude that the concurrence is accidental.

With respect to the pathology of epilepsy, it is far easier to say what it is not, than to say what is the essential morbid condition on which it depends. It is customary to attribute the paroxysms to cerebral congestion, but we may say positively that this is not a correct explanation. Paroxysms occur often where there is no evidence that cerebral congestion preceded their occurrence; and we know that the paroxysms must induce great congestion, so that, according to this theory, the paroxysm ought to continue rather than terminate after the lapse of a few moments. Moreover, congestion of the brain undoubtedly occurs often enough in connexion with diseases of the heart and other affections, without giving rise to epilepsy. Congestion, as applied to different organs, is a very convenient term to cover up our want of positive knowledge. I conceive it to be far better always to admit our ignorance. We are nearer the truth when we properly take such a position, than when we commit ourselves to an erroneous hypothesis. In the former case, we have only to learn when the truth is developed; in the latter case, we have to unlearn before we can learn, and experience teaches that it is far more difficult to unlearn than to learn. Even if congestion were an essential morbid condition, it could not be considered to be the primary condition. Some other condition must precede the congestion, and give rise to it. The fact is, the pathology of epilepsy, with our present knowledge, is unknown.

The seat of the unknown morbid condition which constitutes the disease, is a mooted point. Some refer it to the brain; some (following Marshall Hall) think it is seated

in the spinal cord; and recently a distinguished anatomist in Holland regards it as an affection of the medulla oblongata. Professor Van der Kolk, just referred to, is the author of a work entitled, "The Minute Structure and Functions of the Spinal Cord and Medulla Oblongata, and on the Proximate Cause and Rational Treatment of Epilepsy," a translation of which has recently been published by the new Sydenham Society of London. As a deduction from the minute structure and functions of the medulla oblongata, he concludes that this part of the nervous system is the point of departure for the centric influences, giving rise to epileptic and other convulsions. But he also claims to have ascertained, by the examination of this part after death in several cases of epilepsy, that it is the seat of certain morbid alterations, viz. enlargement of the capillary vessels, hardening from an albuminous exudation, and sometimes softening from fatty degeneration. His pathology of the disease is that, in the first place, it consists in an abnormal sensibility and excitability of the medulla oblongata, and hence, various eccentric influences may excite epileptic paroxysms. Then, as results of the congestions incident to the repetitions of the paroxysms, the organic changes just mentioned occur—the vessels first becoming dilated, and afterwards exudation and fatty degeneration taking place.

I give this as the most recent endeavor to localize the morbid condition in epilepsy, and define its pathological character. The minute, careful, and extended observations of the author entitle his conclusions to respectful consideration. Whether they have advanced our knowledge of the pathology of the disease, remains to be determined by further researches. Assuming the correctness of the views held by Professor Van der Kolk, they are not without practical value. They indicate the importance of combating by local measures the state of morbid sensibility and excitability in the medulla oblongata before a sufficient number of paroxysms have occurred to lead to the structural changes which he describes. In this case the disease has existed already for three years, and it may reasonably be inferred that these changes have already taken place. Nevertheless, I have caused a seton to be inserted high up in the neck, a measure which Professor Van der Kolk advises.

With regard to the treatment of epilepsy, I will simply say that I am not prepared to advocate any remedy or remedies as specially applicable. Some years ago, a French author of a prize essay on the subject, Herpin, reported several cases in which the oxide of zinc had apparently effected a cure, when prescribed early in the disease and continued in pretty large doses for a considerable period. I adopted this treatment in several cases in which the disease had not been of long duration, and carried it out faithfully and perseveringly, but without any good result; hence, I did not feel sufficient encouragement to try the lactate of zinc, which the same author subsequently advocated as a more efficient remedy than the oxide.

The coëxistence of epilepsy and disease of the heart, in this case, renders the prognosis even more grave than if the latter existed alone. The disturbance of the circulation of the heart's action incident to the epileptic convulsions, renders them not devoid of danger; and it would not be surprising if he should die in one of the paroxysms.

Note.—This lecture was delivered Oct. 30. Since the lecture was in type the patient has died, and the autopsy was made the subject of a lecture, Dec. 27. Two days before death, several epileptical convulsions occurred, the first that had occurred after the delivery of the lecture. Prior to this the condition of the patient had improved, and after the recurrence of the epilepsy, dyspnoea became a prominent symptom, but the mode of dying was mainly by asthenia.

The heart was enlarged, weighing sixteen and a half ounces. Both auricles were greatly dilated. The right ventricle was dilated, the walls three eighths of an inch in

thickness. The left ventricle was hypertrophied, walls seven-eighths of an inch in thickness, and the cavity contracted.

The curtains of the mitral valve were united at their sides, leaving a slit like a button-hole. The orifice was so much contracted that the end of the little finger could not be passed through it. A small patch of calcareous deposit existed on the auricular aspect of the valve, none elsewhere. The aortic valves were somewhat thickened and contracted, but they must have been nearly sufficient. The valves of the right side of the heart were normal.

The foramen ovale was closed. The venæ cavæ were greatly dilated.

The right lung was firmly attached by old adhesions. This lung was everywhere deeply congested, and in several patches blood was infiltrated (Pulmonary apoplexy).

Reports of Hospitals.

BUFFALO GENERAL HOSPITAL.

TRACHEOTOMY IN CROUP, DEATH.—FRACTURE OF SKULL, TREPHINING, DEATH.

By JULIUS F. MINER, M.D., ATTENDING SURGEON.

Case 1.—*Croup, Tracheotomy, Death.*—A little girl six and a half years old, of previous good health, was noticed early Wednesday morning to be very hoarse, and to breathe with some difficulty. At ten o'clock, she was admitted to the medical ward, under Dr. Wyckoff, with the following symptoms:—Skin moist; pulse 120 per minute; speaks only in whisper; dyspnoea very great; slight cough; general redness of the fauces, with no appearance of false membrane. Dr. W. prescribed sulphate of zinc and ipecac as an emetic, which operated very soon, affording not the slightest relief. I was now invited to see the child with Dr. Wyckoff. We regarded the case as exceedingly unpromising, and as affording very little if any prospect of relief from medical treatment. Tracheotomy was proposed, as offering the only remaining hope, slight indeed and hardly to be entertained; we advised pulvis ipecac et opii, and sulph. quiniæ, two grains each every four hours, and appointed four o'clock P. M., for again visiting the child. For this was the true time to operate, if at all, as every hour was diminishing our chances of success, yet we reluctantly determined to delay for the purpose of obtaining the advice and assistance of our colleagues.

Four o'clock, P. M.—Respiration more difficult, pulse more rapid and feeble; surface livid, and all the indications of approaching death from asphyxia. About seven o'clock, the child being under the influence of chloroform, assisted by several members of the Hospital Staff and Medical Students, I proceeded to the operation of tracheotomy. The struggles of the child, constant rapid motion of the trachea, the profuse hæmorrhage, the effects of the chloroform, and other circumstances greatly embarrassed the operation, and when at length the tube was introduced, it immediately filled with the membranous product which you here see, three or four inches in length completely filling the tube and necessitating its removal. Again it was replaced, and we had the pleasure of seeing our little patient breathe with ease and comfort; on Thursday morning, we found our patient very comfortable, breathing with great ease, taking water, beef essence, &c., and appearing cheerful and hopeful; hopes were now entertained of her recovery. In the afternoon, respiration became more frequent, pulse more feeble, and the rapidly increasing prostration, with evidences of bronchial inflammation, pointed too certainly to a fatal termination. She died thirty hours after the operation, and I here present you the morbid specimens, which afford points of great interest and importance. The inflammatory

exudation was so profuse and abundant as to completely fill the trachea, as if moulded into it. Below the point where the tube was introduced, there was observed a more recent formation, or product. The first was removed at the time of the operation, but it was afterwards renewed and extended into the minutest bronchial tubes, which we were able to trace. This exudation was more extensive than I have ever seen. The rapidity with which the effusion takes place, and its extension over large surfaces, are characteristics of the croupous exudation.

Prof. Rochester has examined some of this effusion under the microscope, and reports that it is the common croupous exudation.

Case 2.—Depressed Fracture of the Skull—Trephining—Recovery.—Thomas Ley, 26 years, admitted December 5. He had fallen from the cars on the Central Railroad, while in full motion. The frontal bone was fractured and driven down upon the brain with scalp, hair, dirt, etc., etc. He was insensible, breathing slowly and stertorously, had convulsions before my arrival at hospital, and was supposed to be dying; had vomited the contents of stomach with large quantities of blood. By using the trephine we made a clean opening in the skull, and carefully removed from the brain structure, large quantities of bone, dirt, &c., with at least one ounce of brain matter, which was so bruised as to be taken off with the removal of foreign matter. During this operation he had a severe convulsion, and I delayed the work, thinking him about dead. The fracture extended to the longitudinal sinus on the one side, below to the orbital plate, and we had the skull removed for a space about three inches by two. Most of the fragments of bone and foreign matter were removed from over the orbital plate. Hemorrhage was profuse, but abated somewhat upon the application of water dressing, and a light bandage. His respiration gradually became more easy and natural, and he appeared to rally a little, growing warm, and showing approaching reaction. The next day he told us his name; the day after he gave his father's name and place, since which time he has answered all questions slowly by speech, or by very deliberate motion or sign. All the functions of the brain and organic life are properly and naturally performed without apparent loss of power, while yet quite a large portion of brain substance is wanting. It is very remarkable that this injury did not produce immediate death from concussion, causing suspension of all nervous influence, but having escaped this, the sources of danger are yet very numerous, a few of which I will mention. Compression would seem sufficient to certainly cause death in a very short time. Hemorrhage, from which he also escaped, though it was profuse, and continued in some degree for several days. Loss of brain substance, which, as I have said, seems in this case to be no great loss after all. Fungus, from which, at one time, it seemed certain he would suffer, disappeared upon careful compression. Inflammation with effusion or disorganization is also to be greatly feared. Pyæmia, purulent absorption, and infiltration with formation of abscesses in other and distant organs. The very abundant discharge, depression of nervous energy, disinclination for food, and other influences greatly increase the danger of exhaustion. I have attempted only to give a brief account of the nature and extent of this injury, interesting mainly as showing the remarkable powers of nature.*

BROOKLYN CITY HOSPITAL.

EPILEPSY—DEPRESSED BONE—DEATH.

[Reported by H. W. Boone, M.D., Resident Physician.]

MARY K., aged 30, German, a domestic. Admitted Jan. 22, with a note from a physician, who stated that at three p.m. yesterday she was taken with an epileptic convulsion,

* January 6th, 1861. This patient is nearly well, sitting at table, and eating dinner, when I visited the hospital to-day.

followed by others, which occurred at short intervals, but without return of consciousness. These continued frequent from seven to nine p.m., when chloroform was administered by inhalation. This reduced their frequency, and at twelve she was in a sound sleep, but soon became restless, but still was unconscious. Treatment:—mustard sinapisms to lower extremities, and stimulating enemata. Vomited at six this morning. Ten a.m.—Ol. tiglli gr. i. On examination after admission a large scar was found on the forehead, which looked as if it had been the result of a compound fracture with depression of bone. A stimulating enema was given, and in half-an-hour another, which was followed by copious evacuation. Still no return of consciousness. Respiration stertorous. Face flushed. Pupils normal in size, but insensible to light. Dr. Isaacs having seen her thought an operation unadvisable. The patient was transferred to the medical wards, and sinapisms applied over the spine. Jan. 23.—No improvement. Convulsions as frequent as ever; remained unconscious. Jan. 24.—Has high fever. Ordered tart. ant. gr. $\frac{1}{2}$ every two hours till fever subsides, and hydrg. sub. mur. grs. ii. every four hours. Jan. 25.—Convulsions continued frequent, and strength gradually failed till half-past four a.m., when she died, immediately after one of her paroxysms.

Post-mortem, eight hours after death, proved the existence of fracture of the frontal bone at the point indicated by the old scar, commencing in the right internal angular process of frontal bone, about half an inch external to median line; the fracture extended upwards, parallel to median line, one inch and a half, thence outwards and downwards to the articulation of external angular process, with frontal process of right malar, and through this articulation to external boundary of orbit. The triangular fragment included by the above outline was depressed nearly three-eighths of an inch at its internal border, the external angular process remaining in its normal position. The fracture through the internal table corresponded with that of the external, and extended backwards through the roof of the orbit, which was broken into several fragments. On the internal surface a ridge of bone one and a half inches in length, half an inch in breadth, and a quarter of an inch in depth, was found along the perpendicular line of fracture pressing on the brain. The brain was healthy, except that portion which lay upon the ridge of bone just described. At this point softening of the brain was unmistakable. It was found after the death of the patient that she received the injury six months before, and that she never had convulsions previous to her last illness.

COLLEGE OF PHYSICIANS AND SURGEONS.

PROF. PARKER AND MARKOE'S CLINIC.

December 31, 1860.

DR. MARKOE.

EPILEPSY THE RESULT OF INJURY TO THE SKULL—TREPHINING—CURE.—CARIES OF RIB—SUB-PERIOSTEAL ABSCESS.

CASE XX. Epilepsy the Result of Injury, etc.—Ann M., æt. sixteen, fell in the street five years ago, receiving a severe blow upon her head, over the left parietal bone. The skin was not broken at the time of injury, though she remained insensible for two hours; and upon recovering her senses, symptoms of epilepsy began to develop themselves, with mental deterioration, and partial paralysis of the left arm. Two years after the receipt of the injury, the fits of epilepsy increasing in frequency and violence, Dr. Jas. R. Wood trephined her skull, removing a spicula of bone. She has had no fits since the operation, and her paralysis is much better; still the arm is nearly useless, from rigidity of the muscles, which are in a state of chronic contraction. The joints also are all of them stiffened.

Remarks.—This has been a contusion of the scalp, with simple fracture of the bones of the skull; a spicula of bone

keeping up a constant irritation of the brain, producing the paralysis and epileptic fits. Dr. Wood recognised some persistent source of irritation, which he removed in the operation of trephining, and was so far successful as to remove the cause of the fits; but the inability to use the arm still remains, and may be in part dependent upon the long disuse of the muscles, and the deposition of fibrine about the joints, and tendons of the muscles; or the rough circle of bone left by the trephine, may keep up sufficient irritation to cause this chronic spasm of the muscles. This condition presents a striking contrast to the paralysis caused by pressure upon the brain by a clot of blood, or depressed portion of bone; in which case the muscles are soft and flabby, and the arm hangs powerless by the side.

Treatment.—The source of irritation having been removed, it is probable that the patient will regain the use of her arm by recourse to friction and daily exercise.

CASE XXI. Caries of a Rib.—This little boy, who has blue eyes, light hair, and a rather delicate physique, is seven years old. About two months ago, without any apparent existing cause, a tumor showed itself upon the right side of his chest, midway between the nipple and the sterno-clavicular articulation. Since then it has gradually enlarged, till it is now nearly two inches in its largest diameter.

Diagnosis.—This tumor is either parietal or internal in its origin. Auscultation reveals a perfectly healthy and normal condition of the intra-thoracic organs; it is, then, a parietal growth. It is not developed in the integument, as that structure is perfectly healthy and movable over the tumor, which seems to be continuous with the bone of the third rib. It is surrounded by a hard margin, within which fluctuation is perceptible. This is a case of caries of the rib, resulting in the formation of a sub-periosteal abscess. The matter which is formed at the carious point, pushes out the periosteum, producing a tumor of flattened convex shape, like the crystal of a watch. As this disease progresses, the attempt at repair, which continually goes on around the margin of the diseased part, occasions a deposit of bony matter forming the wall of circumscription which we feel around the tumor. The most common seat of caries of the rib is near the middle of the bone, the next is near its articulation with the sternal cartilages. It is frequently the result of accident, generally determined by a cachectic condition of the system.

Treatment.—It would be the height of impolicy to open an abscess of this description. It is not so much by removal of a carious part as by correction of the cachexia, upon which its condition depends, that we are to obtain relief in these cases. This boy should be warmly clothed, well nourished, and sent, if possible, into the country, where he can have plenty of exercise in the open air. He may also take the iodide of iron internally, joined with external applications of the tinct. of iodine. All local irritation of the part should be carefully avoided, and, at the best, it will be a long time before complete recovery can be expected.

UNIVERSITY MEDICAL COLLEGE.

PROF. METCALFE'S CLINIC.

January 5, 1861.

CONGENITAL MALFORMATION OF THE SEMILUNAR VALVES— REMARKABLE TRANSMISSION OF SOUND.

CASE IV.—J. V. P., aged 7½ years. His parents state that at the time of his birth there was an unusual quickness and force in the heart's action, and that he also breathed very quickly. Their attention being thus called to his condition, they were induced for some reason or other to listen to the chest, when they discovered the existence of a loud rough sound, which accompanied each impulse of the heart. The patient has suffered from scarlet fever and whooping-cough, the latter about two years ago, which has caused an "hour-glass contraction" of the chest. His

pulse is 108 and regular, but small; has never been cyanotic. The first thing to be done in suspected heart disease is to see if any prominence of the chest exists; this state of things is noticed upon the left side. The visible impulse of the heart, which should be generally not larger than the end of the finger, extends over a space fully an inch and a half vertically, by two inches horizontally. The apex of the heart should strike about half way between the nipple and the sternum, and in the fifth intercostal space; but in this instance we have it about half an inch to the left of the nipple in the fifth intercostal space, which fact makes it almost certain that the organ is larger than natural. On placing my hand over the left chest, I find that throughout nearly the whole of its anterior portion above the sixth rib, there is a thrill which is also distinctly felt on the right side, an inch beyond the nipple. On auscultation, there is discovered a plainly marked systolic murmur, most intense at the base of the organ. It is audible, however, to a certain extent over the whole of the thorax, on the point of each shoulder, very distinctly throughout the length of the spine, and also down each arm as far as the elbow. Dulness on percussion commences at the lower border of the second rib, and extends down to the fifth intercostal space, embracing a vertical space of four inches; it commences one inch to the right of the median line, and extends as far to the left as the nipple, over a space horizontally fully three and a half inches.

From the physical signs which have been developed here, there is no doubt in the first place that the child has hypertrophy of the heart, for you have the increased dulness on percussion, dislocation of the apex upwards and to the left, and also the forcible impulse given to the hand. In looking after the cause of the disease, we have to leave out of the account what we generally look for in older persons, viz. antecedent rheumatism. There can be no doubt that the trouble was congenital, from the straightforward account of the condition of the child at birth. The situation of the maximum intensity of sound at the base of the heart, and the smallness of the arterial pulse, would lead us to infer that there is some obstructive disease of the semilunar valves. The precise nature of the organic disease we would have very little, if any trouble, in determining, provided the patient had suffered previously from rheumatism; this, however, not being the case, we are forced to believe that the cause of the murmur is due to original malformation of the valves, perhaps deficiency. There may be only one valve at the commencement of the aorta. If this latter be admitted, the present condition and progress of the disease can well be accounted for, inasmuch as the left ventricle has more than its share of the work to perform, and hence the hypertrophy. The distance from the heart at which the abnormal sounds are heard is one of the great peculiarities of the disease under consideration. Patients suffering from this congenital trouble are sometimes attacked with rheumatism, and the physician, if he be not careful in arriving at a diagnosis, would be apt to treat as an acute disease one which had existed for years.

The prognosis in these cases is not good for great longevity, though they may live to become adults. In this particular instance the enlargement of the heart is too considerable to promise much. The treatment must be only expectant in character. I have seen several cases of the sort which corresponded exactly, as far as the peculiarity of transmission of sound was concerned, though in neither of them was this feature so marked.

MEDICINE IN PRUSSIA.—The medical Staff of Prussia, according to the last survey, in a population of 17,739,913 inhabitants, amounts to 358 district physicians (these are paid by government shares to attend the poor gratis); 4,327 physicians who have the doctor's degree; 996 surgeons of the first class; 643 of the second class; 6,026 doctors for animals, first and second class; 1,529 the first, and 11,411 midwives.

American Medical Times.

SATURDAY, JANUARY 19, 1861.

THE ROLL OF CRIME.

DURING the year 1860, just closed, 116 citizens of the city of New York died by the hand of violence. Of this number, 59 are recorded as homicides, and 57 as suicides.

The problem of the prevention of crime has taxed the genius of the wisest statesmen and the most experienced philanthropists. To this end the penitentiary, the prison, the rack, and the gallows have been established, but as yet without avail in completely restraining the vicious. With reference to homicide this question presents two phases: 1st, The removal of the causes of crime; 2d, The punishment of the criminal. It will surprise no one to learn that on investigation it appears that in the great majority of cases of homicide, intemperance is the cause. In this city, so distinguished for its "rum for the million," it supplies the animus to the criminal, however thoroughly his plans are premeditated, in nine cases out of ten. This fact is so patent to every observer that it needs no illustration at our hands. But one plain, simple, practical question presents itself to the legislator, viz. shall this prolific cause of the most heinous crime known to human society, be removed? On the answer to this question depends the length of our criminal calendar. We are aware that many difficulties tend to complicate its settlement in the affirmative, but we are also aware that these obstacles have been met by other communities, and resolutely overcome. The results of such legislation have always been of the most cheering character. Penitentiaries, prisons, and almshouses have been deprived of their occupants, and even courts have met to adjourn without a cause upon their criminal calendar. No man can doubt that if during the year upon which we have entered, not a drop of spirituous liquor was drunk by the people of this city, our almshouse, hospitals, and prisons would be emptied of nine-tenths of their present number of inmates, and our criminal statistics for the year would be reduced 99 per cent.

In the correction of criminals, the first impulse of government was to appeal to the fear of men, and hence have been instituted the most frightful punishments. While the more simple offences growing out of avarice and kindred propensities were thus checked, the more heinous crimes, which are the result of violent and intensely stimulated passion, received but little restraint. Subsequently a more philosophical study of criminal jurisprudence discovered the fact that vicious men are restrained rather by the certainty, than the severity of punishment. This led to important discriminations in the degrees of crime, and corresponding modifications in the severity of the penalties. This principle should never be lost sight of in legislation for the suppression of crime.

But with the progress of human knowledge and practical Christian philanthropy, new opinions have been formed of man's moral nature, and of his relations to his Creator and his fellow men, which are yet to lead to the most important modifications of our criminal laws. The question, should

not all punishments be so modified as to be reformatory of the individual? is already receiving a practical solution in many States. The final prevalence of the conviction, that the period of restraint of the criminal, should be taken advantage of by the State for his reformation, that he may be returned to society a good citizen, will be the grandest triumph of a Christian civilization.

The prevention of suicide involves also two points, viz. 1st, The removal of its causes; 2d, The removal of the means by which it is accomplished. The alleged causes of suicide are numerous. They are insanity, intemperance, melancholy, disappointment, revenge, &c. If, however, each case were carefully investigated, we doubt not these causes with due discrimination might, for the most part, be reduced to one, viz. insanity. The researches in psychological medicine have established the fact that insanity lurks in the community in concealed forms; while all are cognizant of its sudden development in the perpetration of shocking crimes. There can be no doubt that many who are actively engaged in business, or walk the streets, or mingle in society, have those mental proclivities which the most trifling perturbing causes would so unbalance as to lead to personal violence. Most physicians can recall instances of the self-destruction of persons, who, on reflection, they recollect have exhibited many singular peculiarities to which they did not attach sufficient importance. Towards this class of suicides our profession has a most important duty to perform. They should be more thorough in the investigation of the secret springs of melancholy, disappointment, or other disturbing influences of the mind and passions, and so far as possible remove them. Had this been done in numerous cases recorded in this list, it is evident many lives would have been saved, and much human suffering and misery prevented.

Of the means by which suicide is perpetrated, there is but one class over which we have control, viz. poisons. The law of this state is now sufficiently stringent to prevent the sale of poisons to irresponsible persons, *provided* it is enforced. But it is a melancholy fact that of these fifty-seven suicides, twenty-four accomplished self-destruction by poisons. On the druggists of New York falls the fearful verdict of TWENTY FOUR MURDERS IN THE YEAR 1860! What answer have they to make why sentence should not be pronounced?

THE WEEK.

A New York correspondent of a *Philadelphia* paper, who does up the small medical talk of this city in the bad English characteristic of penny-a-liners, manifests so much solicitude for our welfare that we are constrained to relieve him. We now learn, what was formerly not so apparent, that he had a high appreciation of the "Old New York Journal of Medicine," but he is dubious as to the success which has attended the transfer of its subscription list to the *Medical Times*. We can assure our lachrymose neighbor, that the experiment has been entirely successful, and we may state now, what we ought to have mentioned on the first of the year, that though the New York Journal of Medicine had one of the largest medical subscription lists in the country, that list has more than doubled during the last six months, and at its present rate of increase will quadruple before the first of July next. He is also grieved that the editorials of the Times are so "uncommonly

heavy;" a similar, and quite as significant remark was once made by a blasted, upright ear of wheat, to a neighbor, bowed with the weight of ripened grain. Finally, he is perplexed to understand (no great novelty in his case, we are confident) why the *TIMES* is so slow in reporting the proceedings of Medical Societies. We will explain to our obtuse friend, that the following has been a sufficient reason with us for this delay: If the proceedings of our medical societies are of any scientific value, they are worth the labor of a careful preparation and revision by the societies, or at least by the members who participate in their discussions, before being placed on permanent record before the medical world. Besides, every person justly desires to have his statements correctly recorded, and we believe that it is entirely unjustifiable in the conductors of medical Journals to report the discussions of societies without proper revision by the members. Now, as our societies meet but once in two weeks, a delay is necessary to obtain the revision of the society; or, if we consult each member separately, a considerable time must elapse. It is no great feat to prepare the trashy reports of medical societies which appear in the daily papers, and elsewhere, the material of which is of such a perishable nature that it would not keep a week. And we commend to this writer and all who are in want of similar reports of our medical societies, these publications. But we can assure the readers of the *MEDICAL TIMES*, that while we shall make all possible haste to publish the scientific portion of the proceedings of our medical societies, its pages shall never be occupied with ill-digested reports, and discussions of topics of interest only to the society in which they occur.

At the annual meeting of the New York Pathological Society, held Wednesday January 9th, 1861, Dr. A. C. POST was elected President, Drs. T. C. FINNELL and D. S. CONANT, Vice-Presidents; Dr. GEO. F. SHRADY, Secretary; and Dr. WM. B. BIBBINS, Treasurer.

Two important bills have been introduced into the Legislature of this State. The first by Mr. ROBINSON of the Assembly, relates to the health of New York, Kings, and Richmond Counties, and the waters thereof; the second by Mr. MURPHY, of the Senate, creates a Commission of Lunacy, and Inspector of Almshouses. The objects contemplated in these bills are of vital importance, and have been, and still will be, steadily advocated in our columns. Any Health Bill which supplants the present wretched Health Department of this city, and is organized upon a scientific basis, should be supported by every well-wisher of New York, and of his fellow men. It is quite impossible to inaugurate a more contemptibly inefficient system of sanitary surveillance than that which exists at present; indeed, we have nothing to fear in the matter of bad legislation, in regard to our health police. If there is any legislation in this direction, it must be for the better; we only fear that the present, like past legislatures, will leave us another year to the merciless extortions of King Stork. The necessity of establishing a Commission of Lunacy in this State, has been too frequently discussed in our editorial columns, to allow us to suppose our readers uninformed. We hope the physicians of the State will take especial care to urge upon their representatives the importance of this commission.

WE have received a pamphlet entitled the *Murray Hill*

Quarterly. The number contains a variety of sentimental articles, and concludes with advertisements of the preparations of the Proprietors of the Murray Hill Pharmacy, successors to the late H. C. Pridham, 438 Fourth avenue. These advertisements conclude with a recommendation of the firm by Drs. H. S. HEWIT and F. L. HARRIS. These gentlemen disclaim such use of their names. From evidence furnished us it appears that they gave the recommendation supposing that only the most choice pharmaceutical preparations were to be furnished for country physicians. They now believe that their signatures are used to recommend a variety of nostrums, and hence revoke them.

The lesson which this transaction teaches is too plain to be mistaken. Physicians are too prone to allow their names to be used by druggists and others, who finally compromise their position by the base use to which they put them.

We are in the daily receipt of letters from physicians in different parts of the country inquiring for the most recent opinions on Diphtheria, now so wide-spread and fatal. While we shall be able to furnish in the course of this volume a large amount of information upon this subject in addition to the course of special lectures by Prof. CLARK, we would call the attention of those who desire the most recent literature of diphtheria, to the excellent work of Dr. GREENHOW, issued to-day by Messrs. Baillière. This work has just appeared from the English press. It contains a complete exposition of our present knowledge of the history, pathology, and treatment of this disease by one of the most able British writers on epidemics.

Reviews.

PROCEEDINGS AND DEBATES OF THE FOURTH NATIONAL QUARANTINE AND SANITARY CONVENTION, held in the City of Boston, June 14, 15, and 16, 1860. Reported for the City Council of Boston. Boston: Geo. C. Rand and Avery, City Printers. 1860. 8vo. p. 288.

THIS volume has been brought out in the usual good style of Boston publishers, and from a hasty glance at its contents we are convinced that one great work was completed, and another and greater work was inaugurated at the Fourth National Sanitary and Quarantine Convention. The vexed questions of quarantine were finally and for ever settled, so far as a voluntary convention of delegates from our Atlantic cities could determine such a settlement; and as a natural sequence of former labors and inquiries, the convention declared its purpose to carry forward the greater enterprise of sanitary improvement in all the cities and towns throughout this country. The special reports made to the convention on questions relating to civic hygiene, exhibit the fact that sanitary questions far more important to life and health than those relating to quarantine, remain to be solved and adjusted.

LIEUT. VIELE'S Report on Civic Cleanliness, and Dr. GUTHRIE'S Report on the Sale of Poisons, elicited much discussion, and left the convention far more questions to examine than were thought of before those reports were read.

The Report of DR. EDWIN M. SNOW, of Providence, on Registration and Vital Statistics, is a model of concise completeness. It should be made the basis of the systems of registration in all our cities. We shall again refer to this report, and also to the paper presented by DR. HARRIS on Disinfection by Heat. But we need to make special note of the *completed* work of the session, viz. "*Quarantine Regulations as approved by the National Quarantine Convention of the United States.*"

In this report, of less than forty pages, are embodied both the principles and the *regulations in detail* required in the safe and rational management of quarantine, and all external sanitary systems in this or any other country.

After enumerating the requirements and the defects of existing regulations of quarantine, and fairly stating the questions that relate to a proper adjustment of the interests of commerce and travel with improved means of sanitary protection, the report gives in detail, "*Specific Measures of Quarantine*, severally applicable to Yellow Fever, Cholera, Typhus, and Small-pox, with the variations which different localities require." These details are considered under the heads: 1st. *Quarantine Hospitals, and the proper care of the Sick.* 2d. *Quarantine Warehouses and Docks, and the proper disposal and care of infected things.*

The location, character, construction, and care of quarantine hospitals, together with the distribution and care of the sick, are practically discussed, and a well considered and simple programme of quarantine administration is laid down. Next is presented a *Code of Marine Hygiene, with provisions in detail*, relating to sanitary measures at ports of departure, during the voyage, and on arrival; together with a definite statement of the specific executive arrangements, and the sanitary authorities required for carrying into effect those measures. The details are all included in sixty-four sections, and they are exceedingly definite and business-like; and it is probable that some of the proposed measures will awaken popular inquiry, if not selfish opposition. For example, sections ten and eleven provide for a thorough sanitary inspection of sea-going vessels previous to departure, and section sixteen directs that "in no case should the number of individuals to be accommodated on board any vessel, or in any apartment provided for the accommodation of crew or passengers, exceed in ratio *one individual to every four hundred cubic feet of air space*, together with provision for effectual ventilation in all weathers." Ship fever and cholera would seldom be heard of on ship-board if provisions of that character were carried into effect. This report on external hygiene cannot fail to commend itself to the medical profession and to experienced quarantine officers in all parts of the world. And we are pleased to observe that it perfectly harmonizes with the last reports and discussions of the same subject in the British Social Science Association. Dr. Milroy will be gratified to find that Americans as well as Europeans, after suffering the burdens of Quarantine, have discovered "what it is and what it should be."

Second Annual Report of the New York Sanitary Association. For the year ending December, 1860. p. 23.

THE New York Sanitary Association appears to have become a permanent institution among us, and if judiciously conducted it may be a means of accomplishing much good.

It appears, from the Annual Report, that "the Association now numbers upwards of two hundred and fifty members," and that "the professions of Medicine, Law, Public Instruction, Divinity, and the callings of commercial and industrial life, are fairly represented in the membership."

However difficult and objectionable it may be to attempt to popularize the details of medical science, in the departments of pathology and therapeutics, none will admit so readily as physicians themselves that it is desirable widely to diffuse and apply the principles of sanitary science, which is *preventive medicine*. The Sanitary Association has undertaken a world-wide and an unending work; and its members acknowledge that "the human necessities and the philanthropic obligations which called it into existence, will continue so long as ignorance, neglect, and selfishness continue to be the great producing causes of disease, suffering, and demoralization among our fellow beings."

In addition to the labors, hitherto undertaken, the Association proposes to enter upon a system of direct instruction in domestic hygiene; for this purpose it appeals to the ladies and to the various eleemosynary organizations of the city to co-operate in efforts to improve the sanitary condition of the homes of ignorance and poverty.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, JAN. 9, 1861.

E. KRACKOWIZER, M.D., President, in the Chair.

TYPHOID FEVER COMPLICATED WITH PLEURISY AND PNEUMONIA.

DR. WOOD presented a specimen of ulceration of Peyer's patches, accompanied with the following history:—The patient was admitted to the Hospital on the 15th of September, after a week's illness of typhoid fever. The disease progressed as usual for about a fortnight; at the same time it was discovered by Dr. McCready that there was dulness under the left clavicle extending down as low as the third rib. His typhoid symptoms progressed, and he appeared to be doing well, until some intercurrent pneumonia appeared on that side, which was followed in a few days by pleuritic effusion. This latter symptom was relieved by Dr. Ferguson, who made a puncture between the seventh and eighth rib, discharging a large quantity of serum. After this he gradually ran down, diarrhoea supervened, and he died on sixth of November. The post-mortem examination disclosed existence of pneumonia and miliary tubercle in the right lung, and also ulceration of Peyer's plates.

FIBRO-PLASTIC TUMOR OF THE EYE.

DR. NOYES exhibited an eye which had been extirpated two weeks before. The patient from whom it was taken was a young man 19 years of age, a Polish Jew. He stated that seven months previously the sight of his left eye began to fail, and that during the three last months it was entirely lost. About three weeks ago he first came under observation, when he presented no external abnormal appearance in either eye; there was no unnatural congestion of the parts, and no pain was complained of, but he was unable to see anything with the affected eye. The pupil was active and the iris was unchanged in color; but on looking through the pupil there was an unnatural color coming from the bottom of the eye, which on close inspection was found to be confined to the temporal side. The examination by the ophthalmoscope disclosed the existence of a tumor

which occupied at least one-third of the posterior portion of the vitreous humor, and which seemed to be developed in the substance of or behind the choroid coat. Inasmuch as no acute symptoms showed themselves, it was deemed advisable to do what could be done by medication, and he was placed for a few days upon the alternative plan of treatment. In the meantime no change took place, until at a subsequent visit to the Infirmary, after an absence of three days, he presented himself with violent inflammation of the whole eye, the pupil was widely dilated, and it was impossible, from the amount of hemorrhage which had taken place, to see the tumor. The operation of extirpation of the eye was performed at once. The tumor was then found to be developed upon the temporal side of the eye, as was before suspected to have been the case, but the eye itself, save the evidences of the existence of acute inflammation, was unchanged in structure. The tumor was developed in the stroma of the choroid coat, and was covered by pigment; no abnormal adhesion to the surrounding parts existed, but it was so situated as to leave only one quarter of the retina in its normal position, a considerable portion of the vitreous humor being absorbed. The tumor measured eleven-sixteenths of an inch in length, and its longest diameter was exactly one inch. Upon microscopical examination of its internal parts, it was found to consist of the ordinary fibro-plastic elements.

RENAL CALCULUS WITH SYMPTOMS OF INTERMITTENT FEVER.

DR. METCALFE presented a specimen of a small mulberry calculus, which had been passed by a gentleman 59 years of age. He had been in good health until the middle of the summer of 1859, when, in Paris, he was confined to his bed for about a week; the nature of his illness was obscure to his physician, but the prominent features were severe pains in the loins, and nausea. It was thought to be colic, and the idea of the existence of calculus suggested itself. This gentleman afterwards came home, and was in good health until some time during the past summer, when having spent some time at Staten Island, he was seized with the symptoms of intermittent fever; which attacks came on with shivering, nausea, and violent pains in the loins. During my absence, he was treated by Dr. Thomas, who kept him under the use of quinine, but the paroxysms would recur regularly at the end of every fortnight. The presence of a calculus in the kidney was strongly suspected, and the urine was very carefully examined, but no trace of crystals was found. About a fortnight ago, he was seized with another one of his paroxysms, which as usual was attended with a great deal of pain in the back. I then examined the urine myself, and found nothing abnormal in it. I went to see him one morning about a week ago, and found that he had been passing blood quite freely, the urine in the vessel was very darkly tinged, and pure blood flowed from the urethra. He stated that in urinating he heard something drop into the chamber, which after a search proved to be a small calculus. Since that time the hemorrhage disappeared, and he has been troubled no more with any of the distressing symptoms already referred to. I look upon the case as one in which the passage of the calculus gave rise to the symptoms of intermittent fever.

ULCERATION AND STRICTURE OF THE COLON—FÆCAL ACCUMULATION—PERFORATION OF THE INTESTINE.

DR. ALONZO CLARK described the following case:—A distinguished gentleman, sixty-six years of age, and much beloved, had been suffering from indisposition not very grave for about three weeks before Christmas-day. He was able to perform all his duties up to that time, and only complained that he had very incomplete unsatisfactory alvine evacuations. His habits were regular in regard to the movements of his bowels, going always to the water-closet immediately after shaving, and this habit was kept up. I may better say here that in October last he had an attack of pain in the bowels associated with constipation, which his

physician treated by cathartic medicine combined with opium, and relieved him entirely after he had several semi-fluid evacuations. From that time he went on to the time referred to in his usual health. On Christmas-day, having important duties, he performed them with great exertion and extreme fatigue, and went home, and, if I remember rightly, took to his bed, from which he never afterwards arose. Constipation was now a prominent feature in his case, together with pains in his bowels, confined principally to the right iliac region in the neighborhood of the ileo-cæcal valve. His pulse was not excited, his bowels were not tumid, his physician could knead them, could press his hand back against the spinal column, and grasp them in his hand without exciting pain. Until the Thursday following Christmas (Christmas being on Tuesday) he himself had no anxiety about his case, and did not send for a physician. On Saturday a physician was called in consultation. On Sunday this gentleman had severe pain in his bowels and some tumefaction, which, however, was not extreme; the pain was not fixed in character, yet he commonly referred to the right iliac region as its seat. From Thursday to Sunday there had been no movement from the bowels, notwithstanding cathartic medicines were pretty thoroughly tried; injections would return as they were introduced, with the exception now and then that there would be a little washing of fecal matter. On Monday two other physicians were sent for, and they found the bowels considerably swollen, not extremely so, and a certain degree of tenderness over most of the extent of the abdomen. In the region to which he referred most of his pain, the swelling was not produced by solid or fluid fecal matter alone, but a good deal of air. The tenderness in that region prevented deep pressure being made, and the precise character of the whole accumulation, whether partly gaseous or partly fecal matter, could not be ascertained. His pulse by this time had become about one hundred, if I remember rightly; on Monday, it was ninety-six, and on Tuesday, one hundred and four, thus gradually increasing. His pain was of a colicky character, and he would moan during its continuance; during these times, on applying my ear to the abdomen, there would be a vast amount of rumbling, gurgling, and every variety of sound, showing that the peristaltic action of the intestine was by no means abolished. The opinion that was formed when the first physician was called was, that there was some mechanical obstacle to the passage of fecal matter from one part of the intestinal canal to the other. When the larger consultation met, the inquiry was made as to whether any intussusception or hernia existed, but on search neither of these could be found. One prominent feature of the case from beginning to end was absence of vomiting. He continued in this condition until Tuesday night without much change, and at the time of the visit, 8 p.m., he complained of a sudden pain different in character from that which he had before in this region where the larger amount of swelling was, and said the sensation was as if something had given way or been torn. The attending physician was requested to go up in the room and ascertain the cause, and returned saying that he could discover nothing new. Next morning there was a great deal more tympanitic distension of the abdomen, yet the tenderness was not materially increased. The tension of the abdomen was so great that when a piece of oil-silk was placed upon the part, its weight seemed to him great enough to constrain the movements of his respiration; it was accordingly removed, and an ordinary linen cloth substituted. Spill attempts were made to procure evacuations, chiefly with calomel in five grain doses every three or four hours along with castor oil during the greater part of this, the last week of his life. Injections were resorted to repeatedly, but without more effect than before. On Wednesday a fifth physician was called, who advised bleeding. The suggestion was accepted by the majority of the consultation, and he was bled from the arm pretty freely, and was also leeches twice over the principal seat of the pain. But no amelioration resulted from this; he gradually sank,

his pulse becoming more and more frequent, *yet there was no vomiting*. I repeat that, because it seemed to us all a very emphatic point in his case. The long tube was repeatedly used, but with no more effect than that which attended the ordinary injections. On Thursday night, this plan, which had been successful with some of the gentlemen, was finally adopted, of throwing up six or eight ounces of warm water, and desiring the patient to retain it for twenty minutes or half an hour, when a full injection with a little salt was given with the hope that it would return. This was repeated every hour, and he felt more comfortable from it; and finally abundant dejections were procured of what appeared to be healthy fecal matter, but as they continued his strength did not increase, and gradually after this he sank, his pulse growing more frequent until it attained the number of one hundred and thirty-six; then it fell off in frequency, and gained nothing in force. His extremities became cold, and a little purple, and in this condition he died, Friday, about noon. He himself had desired that a post-mortem examination should be made, being aware of the embarrassment that his physician had labored under; the physicians being all persuaded that there was mechanical obstruction in the large intestines, but of what nature, or exactly where, they were all in doubt.

The *autopsy* was made on Sunday. Ulceration of the descending colon was discovered at a point nearly opposite the lower extremity of the kidney, or rather it was first ascertained that there was marked constriction of the intestine, and the whole of the constriction was of a very dark color, very much as if black thread had been tied around it.

This constricted portion was carefully dissected out and the intestine opened from above downwards to the stricture, and from below upwards to the same point, and the entire portion was exposed to view. In that way it was ascertained that nearly the whole of the periphery of the intestine had been the seat of chronic ulceration. It seemed evident that this ulcer had been advancing in one part while it was cicatrizing in another, the consequence of which was a very marked contraction of the whole tube, so that the point of the little finger could be barely inserted into it. At the inferior verge of the obstruction was what appeared to be vegetative production, which grew directly out against the inferior border of the stricture, and in its natural position formed a sort of plug to the passage from below upwards. Beyond this the colon presented nothing remarkable. At the cæcum and first portion of ascending colon there was very great distension. Taking out the portion above and below and tying up the contents, we found them to be fluid in character, and in the main of the same as the copious dejections that took place during his life; but in addition to that there were found in this sac cranberries unbroken in I don't know what numbers. We picked out oats, with the husk on, and a great number of little flexible sticks of some sort or another that had been taken by the mouth; the stem of an apple, etc. We afterwards ascertained from the family that he had eaten no cranberries for four weeks; they had no recollection whatever when he had eaten oatmeal gruel. But a curious circumstance noticed here was that the intestine had been ruptured upon its peritoneal coat, the surface had been rent a distance of fully five inches and had slid upon the other tissues so as to leave a space between the rent edges equal to an inch-and-a-half in width, and producing in the muscular coat which was thus exposed several little points of ecchymosis. At one spot in that denuded portion was a place not quite so large as a three-cent piece, covered with a greyish material, which, when scraped off, left a depression like an ulcer. There was also a corresponding appearance on the mucous surface of the intestine at the same point, so that there was left a mere film of areolar tissue which was perforated with minute openings. Before the intestine was open it was taken in the hand and pressed gently to see if any air would pass through. It was found that numerous little streams of air did pass, and also the fluid contents of the gut.

The peritoneal cavity I might have mentioned before, but it is equally apposite here, when first opened was found to contain quite a large quantity of fœtid gas. It was so considerable that immediately after the abdominal cavity was opened the tympanitis, which had been considerable, immediately subsided, and the walls fell away so as to form quite a depression. The amount of inflammation in the peritoneum was inconsiderable; there was a mere film of fibrinous exudation over a portion of the intestine, while other portions were decidedly injected. A striking point in describing the inflammation I should make, that it was least considerable at the place where the peritoneal coat of the intestine was ruptured.

I should remark that the vegetation has been examined by Dr. Sands, who reports it to be a modified epithelium tumor, made up of hypertrophied mucous membrane and columnar epithelium.

(To be continued.)

Correspondence.

ALBANY MEDICAL COLLEGE.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I noticed an article, signed "Incog.," in the AMERICAN MEDICAL TIMES of Dec. 8, 1860, from Albany, N. Y., in which the writer casts a slur on some of the Professors of the Albany Medical College. He says: "If medical teachers would learn that when they have attained a somewhat advanced age they are no longer capable of instructing classes, because they are no longer able to keep pace with the improvements in the medical sciences, it would be a great blessing to most of our schools. Albany College would be especially benefited, could some of the younger men be placed in the professional chairs now occupied by men who annually teach the same old obsolete doctrines."

The first part of this quotation is entirely unjust in the present instance, and it is unmanly to represent either of the seniors in the institution in this light. PROF. JAMES McNAUGHTON has nearly completed his fortieth year of medical teachings, a portion of which were at Fairfield, in this State, where he taught anatomy and surgery. Since the organization of Albany Medical College he has taught the Theory and Practice of Medicine in the institution, and with what success we leave it for the thousands of students who have listened to him attentively to answer. For one, I can never forget his *purely practical teachings*, and his full determination to fathom and expose to the student *all the important practical truths*, on the one hand; and, on the other, the barefaced and hydra-headed iniquities of the various *isms* and pathies of popular fancies. I can say more; through my medical studies it was a source of great pleasure to know that we had such medical men for council, and that the profession would lose much were he to retire, either from the College or Hospital, or even withdraw his counsel from the profession. So far from not "being capable of instructing his classes," I may say that he might instruct many who are very much younger among the professors of medical colleges in this country; for myself, I should be proud of being called his disciple.

The next in point of age is PROF. ALDEN MARCH, who has taught anatomy and surgery for nearly forty years; has gained a distinction as an operator and teacher that any young Esculapius might wish to emulate. He has been a very successful teacher, and by his own almost unaided effort has succeeded in establishing the Albany Medical College, even against the greatest opposition. Through all of his teachings he has displayed the greatest activity of research—both in his own country and in Europe—which continues unabated even to this period of his labors. He has thus evidenced a strong mind, an iron will, and an

elastic constitution, seldom witnessed in one who has done so much of the work of building up the profession in this new world. The Professor's counsels would be very much missed from our medical circle, either at the Albany Hospital, College, or in general surgical practice.

As to the other four of the faculty of this College, they are among the medium and younger class of professors, all of whom stand pre-eminent as professors in their various branches of medical science.

The next quotation which I shall notice is: "It has long been a kind of one-man power, and far more subservient to private and personal aims and ends, than public good." This latter clause is, in some respects, I frankly confess, too true, and especially in reference to the management of its dissecting rooms and library, while the chemical laboratory has been above criticism. Let us examine this a little more in detail. The library, which, like the institution, belongs to the public, is closed for ever from the general professional reader; while a portion of the library is set apart, and a few of these books are dispensed to the students during the sixteen weeks of lectures. The general library is closed, and no one has access in any manner except the "one-man power" spoken of. This valuable library contains most of the foreign, as well as the home Medical Journals; yet for some reason, not fully explained, the Directors of the Institution have neglected to continue them up to the present date, of necessity destroying their comparative value. This neglect must be construed into parsimony, if it was not a notorious fact that the Albany Medical Society had proposed to complete the same from their own funds, and so keep up the series to the extent of their yearly available means, on condition that the college should keep its library open for the medical profession, the same as our state library is kept *pro bono publico*. This proposition was rejected as the ultimatum of negotiations. This condition, the present efficient and accomplished librarian cannot remedy.

The dissecting department has been truly "a one-man power." The advantages, in this indispensable branch of medical education, have been limited, and being confined mostly to the sixteen weeks of lecture term, the students find little opportunity to do justice to themselves. There are no facilities except in the evening, and that only during the lecture term. There are no private teachers in the city, outside the "one-man power," and if there was an attempt at this, it would be vilified, and students made to believe that, if they were found guilty of trying to obtain that knowledge, under difficulties, which they needed as a desideratum, outside the authorised, would be "one-man power," they could not graduate in the institution. If a Demonstrator of Anatomy becomes obnoxious, he is at once summarily dismissed, even without notice, and when asking for the privilege to continue his anatomical pursuits in the college as usual, was *refused this small boon except he submit to the insult of receiving it as if he was still a student, no more or less*. This class of functionaries are, in this institution, like a foot-ball made to be kicked, and not like those in any other institution in the country. Within the period of ten years, there have been no less than four of these functionaries, three of whom have been thus summarily dismissed.

The chemical department is probably the best conducted and arranged laboratory in the country. There is ample accommodation for many students, and it is open at all times for the advancement of analytical chemistry.

I am, very truly yours,

JOHN SWINBURNE.

ALBANY, Dec. 29, 1860.

FOREIGN CORRESPONDENCE.

Letter from DAVID P. SMITH, M.D.

LONDON.

Nov. 12.—Mr. Jones of Jersey remarked, when here some time ago, that he had removed the astragalus, together with

two inches of tibia and fibula, in a case of compound fracture, with the effect of preserving a useful limb. He also remarked that the comparative slight shortening of the limb rendered it necessary to suppose that there had been some reproduction of osseous tissue. There are many cases of phthisis met with in the Infirmary. Prof. Bennett treats them entirely with nourishing diet and cod liver oil, and repeatedly expresses his opinion that it is not an hereditary disease, but is caused entirely by insufficient nutriment, clothes, and shelter. Prof. Simpson regards the fact that there is no nerve fibre in the umbilical cord as proof positive that there can be no influence exerted by the imagination of the mother upon the fœtus in utero. He says it is not true that he is as strenuous an advocate for the constant use of the speculum as has been represented. He would restrict its use entirely to those diseases in which it is valuable as a means of diagnosis, which as a rule makes its use rather infrequent. He said that a patient had some time ago come under his care for simple polypus of the uterus, accompanied by slight ulceration, who had previously been under the care of a distinguished obstetrician, Dr. Ashwell, who had declared that if he was obliged to use the speculum twice a week, he would give up practice. On being questioned, the lady averred that she had been under Dr. A.'s care nine weeks, and that he had used the speculum every day, Sundays not excepted.

Nov. 22.—Mr. Turner, in demonstrating the anatomy of the fore-arm, remarked that the synovial membrane enveloping the flexor tendons at the wrist extended up some distance upon the lower end of the radius, thus placing it in the way of injury from any fracture of the lower end of that bone. He remarked that some years ago a subject was brought into the dissecting room in which he found, in connexion with fracture of the lower end of the radius, adhesions formed between the bone at the seat of injury, and the synovial sac, and flexor tendons, in a manner that must almost entirely have prevented flexion of the fingers. In the Royal Infirmary cotton batting is used in burns, bound on dry without any oil or other dressing.

Every Saturday at 11 A.M., Dr. Rutherford Haldane, pathologist to the Royal Infirmary, shows and delivers a lecture upon all pathological specimens that have been obtained during the week by post-mortem examinations. Several examples of aortic aneurism have already been shown. In one, death was produced by the bursting of the aneurism into the pleura adjacent, which, being tied down by adhesions, forced the impetuous blood to dissect its way even up behind the trachea and larynx.

Nov. 23.—Prof. Bennett remarked that, while Dr. Todd acknowledged to one death in seven in pneumonia, with his stimulant treatment, which was unquestionably better than the antiphlogistic treatment, he lost one in twenty-three according to his statistics, and believed that of pure pneumonia he lost none. His plan is to nourish the patient well with rich beef tea et id genus omne, to stimulate gently if the pulse becomes feeble, and the moment the urine begins to furnish chlorides or phosphates to give a gentle diuretic. I have watched carefully four cases of the severest description treated in this manner, and certainly their progress was very satisfactory, and recovery rapid. They were all double pneumonia. Prof. Bennett remarks frequently that he never apprehends an unfavorable termination in uncomplicated pneumonia, however severe it may be. In a very animated clinical lecture upon the treatment of this disease, he remarked that during his period of service in the Infirmary, he had had up to the present writing 90 cases, of which three had died. These three he claimed ought not to be counted, inasmuch as one was carried off by ulceration of the bowels, one by brain disease, and the third by renal dropsy. Thus it will be seen that the mortality from pneumonia in his cases is quite *nil*. He remarked that some time past he had caused an inquiry to be made into the mortality of pneumonia, years ago in the Royal Infirmary, when bleeding was in vogue. The case books which extend back for many years

had been carefully gone over, and the cases of this disease therein found carefully tabulated. Their mortality was found to be one in three.

Nov. 30.—Dr. Bennett gave a lucid explanation of the phenomena occurring in pleurisy, characterizing it as a far worse disease than pneumonia. In pneumonia he had no fear, if proper treatment was pursued, but that complete recovery would follow, leaving no trace behind; but in pleurisy an abnormal state of the pleura always remained. In remarking upon mercury, he characterized the confidence by many placed in it as most extraordinary, and dependent upon loose and vague experience, so called. He now never employs it, and sees no reason to regret his disuse of it.

Dec. 3.—Professor Simpson called our attention to three cases in his ward in the Infirmary which were, he said, instances of a disease which had never been described by any author, but which he judged was quite common.

They were cases where the normal absorption of the muscular fibres of the uterus developed during pregnancy, had been arrested, and the uterus retained the size it had when involution ceased. The opposite state sometimes, though far more rarely, occurs; that is, super-involution—complete wasing away—of the uterus. In the three cases of arrestment of involution, one seemed to be occasioned by hæmorrhage, the two others by inflammation of the uterus. These cases may be met with from one month to two years or more after delivery. The usual time required for the normal process of absorption is four, five, or six weeks. There are no especial physiological symptoms of this state, except perhaps bearing down and leucorrhœa. Retroversion, however, often occurs during this arrested involution. The physical diagnosis is easy, but the uterine sound furnishes the most reliable testimony. This state is sometimes present after abortion. The treatment by apiphlogistics, Prof. S. remarked, almost never failed; but the sooner after this arrestment took place they were employed, the better. He very rarely employed leeches. Counter-irritation; the administration of the bromide and of the iodide of potassium; and the application of mercurial ointment, or even of solution of cantharides, to the os uteri and upper part of vagina, are the most reliable means. In some chronic cases deobstruent remedies must be continued for a long time. Mercury can be used, but the iodide or especially the bromide of potassium is preferable. Five to ten grains of the bromide may be given twice or three times a day, without the slightest detriment to the general health; but on the contrary with benefit. On quitting the use of it many persons miss its tonic and stimulant effect. Sir Charles Locock thinks he has cured epilepsy dependent upon disorder of the genital organs by this remedy. It appears to be the main ingredient of most German baths. **I—Prof. S.**—have been convinced that this remedy in my hands has availed to the diminution and almost complete absorption of fibrous tumors in the walls of the uterus. Sometimes, after that the process of absorption has commenced, and the uterus is fast coming down to its normal size, arrestment takes place. At this juncture introduce a sponge tent or intra-uterine galvanic pessary, so as to cause slight enlargement again; then withdrawing this cause of hypertrophy, absorption will again commence and go on to complete cure.

In cases of super-involution, that is when, after delivery, the uterus becomes smaller than natural, and indeed in process of time almost entirely wastes away, a different course must be pursued. The causes of this state of things have not yet been ascertained. The progress of this affection is sometimes very slow and sometimes rapid. One case seen by me six years after delivery had the uterus diminished to two inches in length. Here menstruation had been every year more and more profuse. Another case subsequent to delivery never menstruated, and one year after delivery had a uterus less than two inches in length. In these cases early senility occurs. Chalybeates and tonics seem to do no good unless accompanied by local

treatment. The best thing you can do is to introduce an intra-uterine galvanic pessary, using at first a small one, and every week increasing its size. With this local treatment use iron and tonics—give three times daily one grain of phosphate of iron and one grain of phosphate of manganese dissolved in a teaspoonful of water with a very little phosphoric acid.

DIPHTHERIA IN OTSEGO COUNTY, NEW YORK

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—This disease first made its appearance in the central portion of Otsego county, in the fall of 1860. The premonitory symptoms made their appearance very suddenly: in many cases the attack was so violent, that in six hours after the chill the patient would be completely prostrated. In every case witnessed by me, more or less fever succeeded the chill, usually of a typhoid character; in a few instances it assumed a typhus type. No symptoms attended it which in forming a diagnosis could be mistaken for scarlatina. Although in both diseases the throat is affected, yet the diseased condition of the throat and œsophagus differs very materially. Pharyngeal paralysis attended several children that came under my care, requiring stimulating appliances and the saline bath.

The secondary or after effects of diphtheria sometimes prove very troublesome, and in some instances fatal. I noticed in three or four cases spots upon the surface, resembling petechiæ one patient was suddenly attacked with syncope; in which state he ceased to breathe.

I have lost none to whom I was called within forty-eight hours after the attack. My first business is (if it has not been done) to relieve the stomach and bowels of their morbid contents by the use of a gentle cathartic; apply tr. iodinii to the neck, three times per day, and with a sponge probang, alternately apply a solution of chlorate of potash and nitrate silver, to the ulcers in the throat; sponge the body with diluted nitro-muriatic acid; gum water, beef tea, wine, quinine, and iron, as the case may require. Tonics are indispensable. If neglected or too sparingly used, alarming debility may ensue, the surface of the body become colorless, muscular power in a very short time lost, and the patient soon ceases to breathe.

I have been much gratified at the beneficial results growing out of the use of *nitro-muriatic acid* to the surface. It not only acts as a counter-irritant but as a tonic. Where I have had opportunity to use it early in the disease, I have not witnessed the debilitated, flabby, soft condition of the muscles, or colliquative sweats, which so often lead us to an unfavorable prognosis.

E. W. SPAFFORD, M. D.

PORTLANDVILLE, OTSEGO Co., N. Y. Dec. 31, 1860.

Medical News.

DIAGNOSTICS OF AURAL DISEASE.—This is the title of a new work on the ear, by S. E. SMITH, M.R.C.S., to be issued in February, by H. Baillière, London.

DEATH OF DR. JOLIT.—On Saturday, Dec. 15, in the French Protestant Church, Dr. J. suddenly died, aged 70. He had followed his profession in many parts of the East, but subsequently settled at London, where he devoted much time to the relief of the French Protestant poor, by whom he was much beloved.

WOORARA IN CONVULSIVE DISEASES.—PROF. VELLA has recently experimented with woorara to test its power in counteracting the effects of Strychnia, and was led to conclude, that it was not only an antidote to that poison, but also an important remedy in convulsive diseases.

FATAL EFFECTS OF LARGE DOSES OF CHLORATE OF POTASH IN PHTHISIS.—An inquest held January 16, upon the body of Mr. John S. Tuttle, of Bergen, N. J., reveals the fact that deceased was suffering from phthisis; that he applied to a physician of this city, who ordered eight ounces of chlorate of potash to be put up in twelve packages, one of which (containing over 300 grains) was to be taken daily in a pint of water. He took four powders on consecutive days when the pains in his bowels became very severe, incessant vomiting came on, and finally death ensued. Dr. Booth, assisted by Dr. Olcott, of Jersey City, made a post-mortem examination, and found the external coat of the stomach in a state of inflammation; the internal coat was yellow, the same as that he had vomited; it was soft and could be easily separated off with the handle of the scalpel leaving the muscular coat entirely bare; the lungs were diseased, but the patient might have lived six months or longer. Dr. Olcott and Dr. Booth were of the opinion that the medicine (chlorate of potash) was the immediate cause of death. Dr. Booth testified that from ten to thirty grains of chlorate of potash was a dose, and he had known bad effects from twenty grains given once in three hours.

ANIMAL LIFE AT THE BOTTOM OF THE SEA.—DR. WALLICH (*Lancet*), who accompanied the recent expedition to survey the projected North Atlantic Telegraph Route between Great Britain and America, in endeavoring to determine the limits and conditions essential to the maintenance of animal life, has proved that animal life exists at the depth of two miles below the surface. Here where the pressure is calculated to amount to at least one ton and a half per square inch, and where it can hardly be conceived that the most attenuated rays of struggling light can penetrate, he has not only discovered the minute infusorial Foraminifera, whose calcareous envelopes protect them from pressure, and whose organization is of the simplest, but he has obtained from a sounding, 1200 fathoms deep, a number of star-fishes (genus *Ophiocoma*), adhering to the lowest fifty fathoms of the deep sea line, which must have rested on the bottom a few minutes, to allow those star-fishes to attach themselves.

A NEW WORK BY PROF. GROSS.—Prof. Gross announces that he is engaged upon a systematic treatise on the Injuries and Surgical Diseases of the Scalp, Skull, and Brain, and its Membranes, and he asks the co-operation of the profession in furnishing him "such cases and practical reflections as may have arisen in the course of their experience."

THE NEW YORK SANITARY ASSOCIATION.—At the stated meeting, Jan. 3d, Prof. MORRIS, of the New York Institution for Deaf Mutes, presented another instalment of his report on Marriages of Consanguinity. At the next meeting of the Association, he will read the concluding report upon this subject. The statistics of idiocy, deaf-mutism, and insanity, are made to demonstrate the disastrous consequences of the intermarriages of blood relations.

At a special meeting of the Association, held Dec. 27th, a committee reported upon the agency of women in promoting sanitary improvements; the report taking strong ground in favor of calling into exercise the personal efforts of properly qualified females, "in the work of practical instruction in the homes of the ignorant upon the application of the principles of health and domestic welfare." The following suggestion, perhaps, is worthy of consideration: "In the care of the sick and the unfortunate, there can be no substitute for the tenderness, patience, and ready resources of women. And the committee would express their conviction that the specific qualifications requisite for *skilful nursing of the sick*, are identical with those which will be found necessary for the work of practical instruction in domestic hygiene; and that a band of female health missionaries, would be equivalent to the qualification and outfit of a staff of superior nurses and instructors in nursing."

LIGATURE OF THE ARTERIA INNOMINATA.—DR. E. S. COOPER, of San Francisco, writes (*Am. Med. Gaz.*): "A short time prior to my last communication to you, I ligated the arteria innominata. To-day is the 30th day, and the patient has every prospect of recovering, so far as could be judged by any other evidence than that based upon the results of past experience of other surgeons. I had to remove the external extremity of the clavicles and the right side of the summit of the sternum, to cut off both attachments of the sternomastoid muscle, to dissect away part of the lower extremity of the scalenus anticus of the sterno-hyoid and sterno-thyroid muscles, before it became possible to ligate the vessel." Violent hemorrhage occurred on the 20th day, which, we learn, was repeated and proved fatal.

THERE are six hundred boats, and four thousand two hundred men, now employed in the sponge fishery of the Ottoman Archipelago. Sponges are found at an average depth of thirty fathoms, and a good diver will make from eight to ten dives in a day.

The increasing demand for Cinchona barks, and the increasing difficulty of supplying that demand, have induced the Dutch Government to undertake the transportation of a supply of plants and seeds of the Cinchonas to the island of Java, where the soil and climate are believed to be favorable for their successful growth. We learn from the *London Pharm. Jour.* that this enterprise has been entirely successful, the young trees already yielding bark of a good quality. The East India Company has also undertaken the same enterprise, and through the efforts of their agent, Mr. Markham, upwards of two hundred plants are now on their way to India.

AMONGST the prizes recently accorded by the Academy of Medicine at Paris, were two sums of fifteen hundred francs, and eight gold, and two hundred silver medals to medical men and midwives, for services of different degrees of merit in generalizing vaccination.

THERE were one thousand two hundred and eight deaths in London during the week ending Dec. 15.

THE practice of conveying patients affected with fever, small-pox, and other infectious diseases to the London hospitals in street cabs, which are subsequently hired by others, is one so fraught with danger, that the guardians and overseers of the poor have been authorized to incur the expense of supplying and maintaining a proper carriage for this purpose.

BELGIUM possesses 51 establishments for the insane. Out of 4,500,000 inhabitants 4,907 are insane, being one in every 920.

AMERICAN PRISON AND REFORMATORY ASSOCIATION.—This new organization is the result of a movement made more than a year since with a view to take efficient measures for introducing needed reforms into penal and reformatory institutions throughout this country. The first step towards this result was in the shape of an informal meeting convened in Philadelphia during the Fall of 1859, composed of Inspectors, Directors, and Wardens of Prisons. An Executive Committee was then appointed, who subsequently invited the attendance of officials in various penitentiaries, houses of correction, jails, and other penal institutions, at a Convention to be held in this city. This convention met in this city on Nov. 28th, and was attended by delegates from New York, Pennsylvania, Michigan, Ohio, Maryland, and New Jersey. During the session interesting papers were read and discussed, a Constitution was adopted, and the following officers elected for the ensuing year:—For President, Dr. John H. Griscom, New York; Vice-Presidents, James J. Barclay, Philadelphia; Samuel H. Buskirk, Indiana; Recording Secretary, W. A. Wisong, Maryland; Corresponding Secretary, William Parker Foulke, Philadelphia; Treasurer, A. D. Evans, Baltimore; Executive Committee, Gideon Haines, Massachusetts; N. W. Glark, Michigan; J. T. Everett, New York; H. E. Parsons, Ohio; R. P. Stott, New Jersey.

THE ACADEMY OF MEDICINE, at its stated meeting on Wednesday evening of this week, declared its adherence to the letter and spirit of the Code of Ethics, and by an almost unanimous vote has absolutely prohibited the practice of reporting its proceedings in the secular papers.

THE first volume of a new work on Surgery has just been issued in London; and the whole is to be completed in four volumes, the second being now in press. It is edited by T. HOLMES, and among the contributors are SIMON, COOTE, PAGET, LEE, MOORE, POLAND, and others.

TO CORRESPONDENTS.

E. A. and others.—The postage on the bound volume of the *American Medical Times* is 40 cents, and on the cover 9 cents. The postage on both must be pre-paid.

COMMUNICATIONS have been received from:—

Canada—Dr. J. FOOTE. *Connecticut*—Drs. J. P. PHILLIPS, G. WELLS, C. C. CUNDALL. *Illinois*—Drs. Z. C. BROWN, F. T. MAYBURY, S. C. GRIEWOLD, W. WELLINGTON. *Indiana*—Drs. E. H. CRIPPEN, S. ATHON, J. MENDENHALL, H. J. BEYERLE. *Iowa*—Drs. J. N. DUBLEY, J. G. WILLIAMS. *Maine*—Drs. L. PERKINS, M. SWEAT. *Massachusetts*—Drs. H. M. HOLMES, W. MINER, C. N. CHAMBERLAIN, J. FOSTER, P. W. ALLEN, R. S. WARREN. *Mississippi*—Dr. R. B. MAURY. *New Hampshire*—Drs. E. AIKEN, C. O. TOWN. *New York*—Drs. H. C. MAY, E. WEBB, J. F. MINER, H. W. DEAN, N. MEADE, N. NIVISON, A. WILLARD, G. H. HAAS, A. GREEN & SON, J. GOODYEAR, A. B. LUCE, F. D. LEUTE, D. F. FETTER, C. S. GOFF, D. T. JONES. *Nebraska*—Dr. R. R. LIVINGSTON. *Michigan*—Dr. E. M. CLARK. *North Carolina*—Dr. P. E. HINES. *Ohio*—Drs. E. M. DOWNS, D. A. McLANE, R. SHELLEN, W. T. BROWN. *Pennsylvania*—Drs. W. T. PLANT, D. BACON. *South Carolina*—Dr. J. H. POWELL. *Vermont*—Drs. D. W. HAZELTON, G. D. STEVENS, A. A. ATWOOD. *Texas*—Dr. R. L. BRODIE. *U.S.A.* *Wisconsin*—Dr. W. LIBBY.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK.

From the 8th day of January, 1861, to the 15th day of January, 1861.

Deaths.—Men, 104; women, 86; boys, 128; girls, 107—total, 425. Adults, 190; children, 235; males, 232; females, 193; colored, 5. Infants under two years of age, 143. Among the causes of death we notice:—Infantile convulsions, 23; croup, 14; diphtheria, 12; scarlet fever, 35; typhus and typhoid fevers, 10; consumption, 68; small-pox, 10; dropsy of head, 8; infantile marasmus, 15; inflammation of brain, 12; of lungs, 45; bronchitis,

15; congestion of brain, 8; of lungs, 4; erysipelas, 4; whooping cough, 4; measles, 6; rheumatism, 3.

Jan. 1861.	Barometer.		Temperature.			Difference of dry and wet bulb. Therm.		Wind.	Mean amount of cloud.	Rain.
	Mean height.	Daily range.	Mean.	Min.	Max.	Mean.	Max.			
	In.	In.	°	°	°	°	°		0 to 10	In.
6th	30.20	.40	33	28	37	4	5	S.W.	4	
7th	29.74	.24	42	34	50	3	5	S.W.	9.5	.01
8th	29.90	.25	35	30	41	4	6	S.W.	4	
9th	29.94	.25	32	30	34	2	3	N.E.	10	.08
10th	29.60	.30	27	18	34	4	6	N.W.	5	
11th	29.95	.20	18	13	22	2	3	N.W.	6.5	
12th	30.00	.50	13	2	25	3	4	N.E.	7	.06

REMARKS.—6th, clear A.M.; 7th, fog A.M., with very light rain on the nights of the 6th and 7th (January thaw); 8th, fog A.M.; mid-day clear; 9th, snow P.M.; 10th, clear P.M.; 11th, snow P.M.; 12th, snow early A.M.; clear with fresh wind P.M., temperature 25 degrees at noon, 2 degrees at midnight—coldest night, succeeded by the coldest day since the 11th Jan. 1859. Wind generally light for the week.

MEDICAL DIARY OF THE WEEK.

Monday, Jan. 21.	{ NEW YORK HOSPITAL, Dr. Peters, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Thomas, half-past 1 P.M. EYE INFIRMARY, Diseases of Eye, 12 M.
Tuesday, Jan. 22.	{ NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M. EYE INFIRMARY, Diseases of Ear, 12 M. OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M. BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
Wednesday, Jan. 23.	{ EYE INFIRMARY, Operations, 12 M. NEW YORK HOSPITAL, Dr. Cock, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Sayre, half-past 1 P.M. N. Y. PATHOLOGICAL SOCIETY, half-past 7 P.M.
Thursday, Jan. 24.	{ OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M. NEW YORK HOSPITAL, Dr. Peters, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Elliot, half-past 1 P.M.
Friday, Jan. 25.	{ NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Church half-past 1 P.M. EYE INFIRMARY, Diseases of Eye, 12 M.
Saturday, Jan. 26.	{ BELLEVUE HOSP., Dr. Wood, half-past 1 P.M. OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M. NEW YORK HOSPITAL, Dr. Cock, half-past 1 P.M. EMIGRANTS' HOSP., WARD'S ISLAND, Dr. Carnochan, 3 P.M. EYE INFIRMARY, Diseases of Ear, 12 M.

THE LATEST WORK ON DIPHTHERIA.

PUBLISHED THIS DAY.

ON DIPHTHERIA,

By EDWARD HEADLAM GREENHOW, M.D.

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CHAPTER XI.	MORBID ANATOMY OF DIPHTHERIA.
CHAPTER XII.	TREATMENT.

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Original Lectures.

CLINICAL LECTURES ON THE DISEASES OF WOMEN.

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BY

B. FORDYCE BARKER, M.D.

OBSTETRIC PHYSICIAN TO THE HOSPITAL.

LECTURE II.

THE CÆSAREAN SECTION.

GENTLEMEN:—I will first give you the history of the case, from the close of my last lecture to the time of the death of my patient, then the result of the autopsy, and afterwards ask your attention to a discussion of such points in the case as seem to me worthy of your consideration. The patient was watched with the most assiduous care by my excellent assistants, Drs. Fernandez and De Rosset, the symptoms were hourly recorded by the latter, and she was seen by myself at least three times in every twenty-four hours, up to the time of her death. I will give you a condensed abstract of Dr. De Rosset's record:—Two hours after the operation, the patient was removed to the room of the nurse of the lying-in ward, where the temperature of the room could be better regulated, and the patient could be kept more free from disturbing influences. Slight hemorrhage was produced by the removal, which was readily controlled by pressure. Adhesive straps were tightly applied over the abdomen, which was then covered with two folds of patent lint. Her pulse was then 100 per minute, full and soft; respiration 28; skin warm; temperature of room 70°. She took 3 ij. of brandy, and 3 j. of beef-tea every hour, and gtts. x. of Majendie's solution of morphia. There was some discharge of blood from the vagina. She slept the most of the night, feeling perfectly comfortable, her pulse ranging from 100 to 108; resp. from 23 to 28 per minute. At 6½ A.M., November 4, she complained of some darting pains through the uterus, but these soon disappeared. It will be remembered that the operation was completed at 1 P.M., Nov. 3. At 9½ A.M., when I saw her, the pulse was 100, and of a good character, resp. 25. I drew off 3 vi. of urine by the catheter. There was no pain, tenderness, or distension of the abdomen. During the day there was no change of symptoms, except that the pulse gradually fell to 90, while the respiration was 24 per minute. At 4 P.M. 3 viij of urine were drawn off. At 5 P.M. she vomited about 3 iv of half-digested beef-tea. Spts. of ammonia were applied to the nostrils, and as she complained of thirst, small pieces of ice were put in her mouth. For several hours there was intolerance of the beef-tea and brandy, and vomiting occurred three or four times. This was, however, entirely overcome by giving gtts. ij. of dil. nitric acid with each ounce of the beef-tea. At 9 P.M. the bladder was again evacuated by the catheter. As there was some tendency to tympanitis of the abdomen, the dose of Majendie's solution was increased to gtts. xv. per hour. I will remark here, that the solution used was of a very feeble quality, as had been proved with other patients in the hospital, and there was no approach to narcotism on the part of this patient. After taking the dilute nitric acid, the nausea and vomiting entirely disappeared. At 11 P.M. the pulse was 92, resp. 25. The frequency of the respiration was conclusive evidence of the tolerance of the morphia. She slept very little from 1 A.M. (Nov. 5th), until 5 A.M., but complained of no pain, or other unpleasant symptom—on the contrary, she described herself "first-rate." At 6 A.M. expressed a desire to make water, when 3 viij. of urine were drawn off. The urine was perfectly natural in appearance. She slept very quietly, except when awakened to take her beef-tea or Maj. sol. At 10

A.M. I saw her, when her pulse was 96, resp. 22. The urine was again drawn off. There was no tenderness or tympanitis of the abdomen. The lochial discharge from the vagina had continued, moderate in quantity, but normal as to character from the time of the operation. Her symptoms and treatment continued about the same during the day. At 5½ P.M. she passed water without the catheter, and again at 8½ P.M. She slept well and quietly during the night. When awake, her intelligence was perfectly clear, and she complained of nothing; but her pulse gradually arose in frequency to 116 per minute, while the resp. fell to 20. Nov. 6.—The pulse, generally, during the day, 116, resp. 20. Passed water several times. No nausea, pain, or other unpleasant symptom. Skin and countenance natural. Nov. 7, 1 A.M.—Patient inclined to vomit. She swallows bits of ice, and inhales aqua ammoniac. At 2 P.M. there was slight emesis, but there was no change in the character of her pulse or respiration for some time after. The vomiting gradually became more frequent, a dark fluid being ejected, and tympanitis began to be manifest. Her pulse increased in frequency to 132, 138, 148, 160; her countenance became sunken and haggard; her spirits depressed; a sero-sanious discharge appeared from the vagina, and she died quietly at 2 P.M., ninety-seven hours after the operation.

The post-mortem examination was made by Dr. Phelps, Curator of the Museum, in the presence of several of the physicians and surgeons of the hospital, and many of your own number, twenty-five hours after death. The abdomen was greatly distended, and upon opening it, much fetid gas escaped, and the walls collapsed. But it should be remarked that this distension occurred principally after death. There did not appear to be the slightest attempt at union in the incision which had been made in the abdominal walls. The intestines were very tympanitic. To the right of the median line the intestines were slightly adherent to the abdominal parietes. These adhesions reached from about an inch above the symphysis pubis to the level of the umbilicus, and were longitudinal, forming a band about an inch in width. The intestines were moderately injected, and on the surface there were some slight exudations of lymph. There was a small quantity of pus at the bottom of the external incision. The abdomen was remarkably free from fluid, only two or three ounces of serum being present in the peritoneal cavity. In this cavity there was no blood or clot. The sigmoid flexure of the colon was found with its opposing surfaces slightly attached by lymph, inclosing, in some spots, a very small quantity of purulent matter. Upon removal of the intestines and bringing the uterus into view, its volume was found to be about that of the foetal head, its shape irregular, and its fundus on the right, and its long axis a little oblique to the left downwards. Its peritoneal surface was very feebly adherent anteriorly to the abdominal walls. For a radius of about an inch and a half around the uterine incision, the tissue of the uterus presented a gangrenous appearance, without, however, the characteristic odor of gangrene. There was no effort whatever at closure of the uterine incision. A sub-peritoneal fibrous tumor, of the size of a walnut, was found on the uterus, posterior to the insertion of the right round ligament. On dividing the left Fallopian tube near its origin, a drop or two of pus could be squeezed from either opening. The same result followed a section further down. The uterus was flaccid, and imperfectly contracted. Upon making a small section near the fundus, minute clots could be with some effort squeezed from the uterine sinuses. There was apparently no pus in them. The bladder was contracted and empty. The liver was of normal size, but had undergone fatty degeneration. The right kidney was of normal size, the capsule non-adherent, with much congestion of stellate veins. The left was smaller in size, more fatty, with its capsule somewhat adherent. The heart was normal in size, flaccid, and free from valvular disease. There were no adhesions in the pleural cavities, and

the lungs were free from tubercles and purulent deposits. On examination of the pelvis, the linea ileo-pectinea presented no abnormal sharpness nor bony growths. The symphysis pubis encroached somewhat upon the antero-posterior diameter of the superior strait, which measured three inches and three quarters. The transverse measured four inches and one-eighth. The oblique diameters were in perfect proportion to these. The cavity of the pelvis was occupied by an osseous tumor, attached to the anterior surface of the sacrum, commencing at about the second bone of the sacrum, and extending down to the os coccygis. This bony tumor was smooth on its surface, but on measurement the antero-posterior diameter of the cavity was but two inches and a quarter. The soft parts would diminish this diameter to less than two inches. The oblique diameter of the cavity was still less. The antero-posterior diameter of the outlets was three inches and three quarters, measuring from the point of the coccyx to the lower margin of the symphysis pubis. I have omitted to mention that the tibia exhibited an unusual specimen of syphilitic periostitis and necrosis.

The first question which will naturally suggest itself to your minds, will be as to the propriety and necessity of the operation in this case. In those cases, where the pelvis is deformed to any considerable degree, or where the pelvic diameters are so contracted as to render the delivery of a living child at full term impossible through the natural passages, there are three methods of delivery, viz. the induction of premature labor, craniotomy, and the cesarean section. The induction of premature labor is one of the greatest improvements in modern obstetric medicine. It met with great opposition from those ironically called *conservatives* in the profession, but it may now be regarded as an accepted rule of practice when certain conditions exist. The morality of the operation was for a long time warmly and acrimoniously discussed, but it is now deemed the duty of the accoucheur to resort to this operative procedure, 1st, where from certain diseased states of the mother the life of the ovum must be sacrificed in order to save her life; 2d, where it is necessary to save the life of the child under circumstances which do not involve any question of danger to the mother; and 3d, under certain conditions where it becomes necessary to save the lives of both mother and child.

There is no doubt that had this method been resorted to the lives of many mothers and children might have been saved which have been sacrificed by craniotomy and the cesarean section. But in the present instance, this operation was not in question, as the patient was not seen by us until she had arrived at full term, and was in active labor. We then had to decide between craniotomy and the cesarean section. We were obliged to choose between the two most horrible alternatives in obstetric practice. By the former the life of the child is necessarily sacrificed, while the life of the mother is by no means secured, as statistics show that the mortality of the mother is one in five. By the latter operation, the lives of both may be saved, but the chance for either, we are compelled to say, is small. It is most instructive to study the change which has taken place among obstetricians as to the conditions which render the operation of craniotomy necessary, as proved by the constant decrease in the relative frequency of the operation. Especially is this the case in Great Britain and, I suspect, in this country, although we have no statistics by which we are enabled positively to assert this.

Mr. Churchill's statistics, which were published in 1847, prove that among British practitioners craniotomy is resorted to in about 1 in 2014 cases of labor. In a paper read before the Obstetrical Society of London, February 1859, by Dr. Tyler Smith, he asserts that statistics prove that in British practice this operation is performed in about 1 in every 340 labors, which is a most notable decrease. Yet in this proportion, Dr. Smith shows that in England and Wales, the deaths of 1800 children and 350 mothers are due to craniotomy. Every improvement made in obstetric

science tends to diminish the frequency of this operation, where the child is living and viable. The induction of premature labor, the earlier and more frequent resort to the forceps, version in case of slight contraction of the brim of the pelvis, all are so many means to this end. And as Dr. Smith justly remarks, the same may be said of the application of auscultation to obstetrics, a better knowledge of the mechanism of labor and the motor physiology of parturition, of the introduction of chloroform, and of the better management of placenta previa. I was very much pleased with a remark of Dr. Thomas, in a paper which he read before the Academy of Medicine of this city, at the same time that he exhibited an instrument which he had devised for the perforation of the fetal head, an instrument, which so far as I can judge without practical experience in its use, is the best adapted for that purpose of any yet proposed. Without pretending to give his exact words, his remark was to this effect, that the necessity for the operation (craniotomy) decreased in exact ratio with the progress of obstetrical science. Every one will accept as a law, that craniotomy should never be performed when a living child can, by any means compatible with the safety of the mother, be delivered by the natural passages. The progress of science has led to great improvements in the means of delivery with safety to both mother and child. The operation of craniotomy is performed in

Germany . . .	once in every 1944 labors.
Paris . . .	" 1628 "
France at large . . .	" 1200 "
Vienna . . .	" 688 "
England . . .	" 340 "
Ireland . . .	" 106 "

It is an operation positively necessary in certain cases to save the life of the mother, where the pelvic diameters are too small to allow a living child to pass, either from deformity or tumors, or where the head from disease is too large, although the pelvis is of a natural size, provided the mother can be delivered in this way, without running greater hazard than by the cesarean section. We have then a certain class of cases where it is a question to be decided which is the more dangerous to the mother, the slow, difficult, and painful extraction of a mutilated child or the cesarean section, and this was just one of those cases. There are some obstetricians who maintain that the cesarean section is never justifiable where there is a possibility by any means of extracting the mutilated fetus through the natural passages. They assume that this method, if possible, is always safer than the cesarean section. It is curious to remark that these *conservatives*, as they regard themselves, are generally advocates practically for craniotomy, and opposed to version as a substitute, the early use of the forceps, or the use of chloroform in labor. A few years ago there was a most excited discussion on this subject, before the Medico-Chirurgical Society of London, during which Dr. Robert Lee took the above position, and defended it with an equally bad spirit and bad logic. But I think the great majority of obstetricians at the present day regard the cesarean section as indicated when the child is alive, and the antero-posterior diameter is but from two to two and a half inches, and particularly when this diameter is thus decreased by an osseous tumor, without any increase in the other diameters, as is usually found in pelvic deformities. I, therefore, feel that in this case I shall be justified before the tribunal of professional opinion in deciding in favor of the cesarean section.

After the operation you observe that the patient was treated by large and continued doses of morphia, and stimulants and nutrition in good quantity. We aimed to guard against nervous irritation and peritonitis, and to promote in every way the process of repair.

You will pardon me for calling your attention to one point in the treatment. On the second day after the operation, the stomach of the patient became intolerant of the nutrition and stimulants, and vomiting occurred. A drop

or two of the dilute nitric acid was mixed with each table-spoonful of the beef-tea, after which the intolerance entirely subsided, until a few hours before death. I believe by this means, simple as it may appear, that I have saved several lives. Inability to retain nutriment is one of the most prominent symptoms of great depression of the vital powers. I have several times seen it after severe hæmorrhage, whether from uterine or other sources. Now by giving the nutriment in very small quantities, with a drop or two of the dilute nitric acid, at very short intervals of time, I have invariably succeeded in securing support.

You will observe that the post-mortem examination demonstrated that the incision in the uterus was open and gaping. This has been found to be the fact in quite a large number of cases where the cesarean operation has been performed. I could quote several such from the published accounts. No one yet, that I am aware of, has closed the incision by the use of sutures in the walls of the uterus, but it may yet be found that it is safe and practicable with the metallic suture. The healing of this incision must take place by what Mr. Paget terms "immediate union," and this has been attained by the complete and permanent contraction of the uterus. To secure this, constant pressure was kept over the uterus until the dressings were applied, that is, nearly three hours; and the absence of hæmorrhage in the peritoneal cavity proves that the contraction was efficient.

You will observe also that while there was very little peritonitis or evidence of inflammatory action on other tissues, there was a total absence of any attempt by nature at healthy recuperative action. As there are no other assignable reasons, we are, perhaps, warranted in supposing that this may have been due to a syphilitic cachexia, and a low status of the vital forces, resulting from a fatty degeneration of the liver and kidneys.

Original Communications.

REPORT ON DIPHTHERIA,

AS IT APPEARED AT SOUTH ONONDAGA, ONONDAGA COUNTY,
NEW YORK, WITH REMARKS ON ITS TREATMENT,

By JONATHAN KNEELAND, M.D.,

OF SOUTH ONONDAGA, NEW YORK.

It is some five years since a few cases of what I now consider to have been victims of this formidable malady occurred in my practice. It was limited to two or three families. It was fatal in four cases only, and in three of the four death was caused by membranous croup. The other case resulted fatally from anæmic symptoms supervening upon albuminuria, which came on with the occurrence of diphtheritic secretions in the throat. I recollect in one of these patients that a blister was coated over with a greyish yellow membrane, like the effusion which in the same child seemed plastered over the tonsils; a sore on the lip was also covered with a similar exudation.

But not to go back to these half-forgotten cases, and records of treatment, let me attempt to present some of the distinctive features of the disease as seen and treated during the present year. The two first cases I saw in July last, in consultation with the attending physician. The patients had been ten days sick, and under treatment nine days. One, a girl of seven and a half years, was lying with the chest elevated, her head thrown back, her voice a rough whisper, her lips and the edges of her nostrils of that dark crimson hue, sometimes seen in advanced scarlatina; her pulse was thready and staggering, *i. e.* a few rapid beats following each intermission, and these succeeded by a number of slow beats; she was rational, took both broth and medicine with ominous avidity. Ere long she rose and

crossed the room to get her drink, lay down, and was dead in a few minutes; dying of dyspnoea, two hours after I first saw her. Her breath was horribly fetid, and the throat had been considerably swollen externally; the false membrane had twice separated from the tonsils, and formed again, the last time doubtless extending into the larynx.

Her brother, aged about ten years, was seized on the same day with his sister—both came from school, complaining of chilliness, vertigo, pain all over, followed in a few hours by high fever; they both vomited during the onset of the disease; both seemed suffering from worm symptoms, and the boy passed several. The difficulty in the throat was noticed in the boy's case on the second or third day. The treatment, as I was informed, had been nit. argenti and chloride of soda to the throat, and the chlorides and mur. tinct. ferri internally. The boy was believed to be gaining when I first saw him; he had no fever; the diphtheritic coating had peeled off the tonsils, and had not re-formed; his pulse was abnormally *slow*, not exceeding sixty-five beats in the minute, and it became still more tardy. I saw him with his attending physician, a few times during the six days he lived after my first visit. His pulse (as did also that of his sister), became irregular two days before his death; he also vomited more or less, each day, for the last five days of his life; his lips were pale; his cheeks cold; could not rise without faintness; had no return of appetite from the use of tonics and stimulants; the susceptibility of his stomach to food and medicine seemed lost. He became convulsed, at intervals, twenty-four hours before his death, with what Marshall Hall calls "convulsions from debility." He died from anæmia; the blood doubtless having undergone a change unfitting it to supply nerve force.

These two, with three other fatal cases, which I saw by invitation of the physicians in attendance, occurred in July and August last, in contiguous neighborhoods. Among the farmers of our hilly, healthy township, most of the subjects were healthy, well-fed children. Since that date, there have occurred five more deaths from the disease, in, or near the same localities with the five previous fatal cases. Not having seen these last fatal cases, I am compelled to depend on the statements of others, as to the symptoms, cause, and mode of death, and also as to the number recovered. From the testimony of the physicians attending, and families in which cases occurred, I cannot learn of more than eighty cases, in all, since the first cases in July, to this time. Of these (if correctly stated), ten have died, which gives in this epidemic, a very large percentage of fatality. Of the ten, five died with croupy symptoms, two in convulsions, or comatose; and three of anæmic symptoms; occurring in the latter cases during the second or third week from the attack. From July last to this date, I have seen and treated seventeen diphtheritic cases, exclusive of the five fatal cases treated by others, and seen by me in consultation. Of these twenty-two, three were over twenty-five years of age, and under forty; seven between ten and eighteen years, and twelve under ten years; one only being under one year, an infant of seven months.

The false membrane was not seen in most cases, until a day or two after the onset of the disease, and in a few it did not show itself until after the subsidence of the febrile symptoms. In two cases it came upon the tonsils, and inside the cheeks and tongue, with the return of convalescence.

This effusion differs from the sloughs of scarlatina anginosa, and from the inflamed and scarlet tonsils and uvula of quinsy, in that it seems to be *laid* or *stuck* on to the pharynx, tonsils, or uvula, looking like an adherent flake or patch of thin buckskin; sometimes it is nearly white, oftener it is of a grey or dirty yellow color. Although most frequent in the throat, it is sometimes found adhering to the roof of the mouth, on the larynx, within the nostrils, and in a few patients I have seen it form on any accidental abrasion, or herpetic sore on the lips. Twice I have seen

it on the external ear, and then it seemed to pass from the tonsil through the Eustachian tube. The patient first suffered from a distressing ear-ache, and then a diphtheritic membrane formed in the external ear.

Relapses occurred in four cases of the seventeen, and some of these were a second and third time visited with the characteristic effusion, and one of them, three weeks after the first attack, threatened a fatal termination in the relapse, although mild in its first attack. Partial paralysis of the muscles engaged in deglutition occurred in two cases.

In a few children, and in two adults, I saw about all the other symptoms, with no diphtheritic secretion. I have not counted these among my cases of diphtheria; but they happened in the same families, and were treated successfully with the same general treatment, with the marked cases of that disease. Here I may say, that in this malady we shall find remedies addressed to the constitution, or general treatment, much more curative than local remedies.

The most striking peculiarity of this disease appears to be its depressing or anæmic sequences, so rapidly following its vigorous phlogistic onset. For instance, I was called to a girl of five years, who had, the day before, been seized with convulsions, which she had never before had, vomiting occurred at intervals, with high fever, and rapid pulse, stupor alternated with fits of screaming. I cleared out the bowels promptly with calomel and rhubarb, followed by enemata of salt and water; and the prevalence of diphtheria in the neighborhood having put me on my guard, I placed her at once upon quinine and the chlorine mixture. Yet within four days she was found with an irregular pulse, cold extremities, and feeble reaction. I gave her quinine in three grain doses, twice in twenty-four hours, and all the stimulating broths the stomach would retain. The diphtheritic membrane did not appear in this girl's mouth until the ninth day from the attack, after which she slowly recovered. In this, and some other cases, it peeled off, and formed two or three times. It looked not unlike flakes of yellowish white-paint scales, after its separation from the throat and roof of the mouth. A croupy cough, which began on the tenth night, gave me much uneasiness; this was combated by applying nit. argent. forty grains to the ounce of water, and by blowing into the throat and fauces, through an ivory tube, exsiccated alum, pulverised with an equal quantity of tannin. I also induced emesis, at two different times, with a solution of alum, of which I gave a saturated sweetened solution, half a table-spoonful once in ten minutes, until vomiting took place; this relieved, for a time, the croupy symptoms, and *perhaps* the alum was useful in preventing future adventitious formations.

Of the seventeen cases seen and treated by me, all of which had the diphtheritic secretion and recovered, two were *seized* with convulsions, and one child had convulsions during the collapsed stage of the disease. It seemed probable to me, that in these and some other patients cerebro-spinal congestion was a leading feature of the disease. This induced me to make stimulating applications to the nape of the neck, and in some cases, where albuminous urine occurred, to the lumbar region.

In giving briefly the treatment I found most successful, I would claim no other merit but that of having somewhat early learned, that we must at the outset sustain our patients by specific constitutional remedies, and not rely too much on local treatment. In a few cases where the tongue was foul and the bowels loaded, I gave calomel and rhubarb, or castor oil and turpentine, followed by injections, promptly cleaning out the *primæ viæ*. After this, no reducing means were used, but the patients were at once put on the use of the following mixture:—Chlorate of potash 3 ij., hydro-chloric acid (dil.) 3 ij., water 3 viij., sweetened to the taste, giving from a dessert spoonful to a large spoonful, according to the age of the patient. In some cases I added to this a minute quantity of sulph. morphia, twice or three times a day, if the child was very unquiet. In cases where vomiting was not troublesome, I added to the above quantity of chlorine mixture, from one

quarter to half an ounce of the muriated tincture of iron. I also tried, in some cases, from five to fifteen drops of this preparation of iron in sweetened water, once in three or four hours, but oftentimes it did not agree with the stomach, and I fancied it was better borne in the chlorine mixture, and that in sensitive stomachs the iron had better be omitted. I used, in many cases, chlorate of potash and gum guaiacum, equal parts, in powder, in doses of from five to ten grains once in three or four hours; this frequently seemed to act well, not only by sustaining the strength, but also on the local disease. I usually gave quinine on the second or third day, in a large dose, in the afternoon, and in cases where the pulse faltered, or became abnormally slow (as it did in some patients in the collapsed stage), I also gave the quinine in the morning. It is better given in one or two large doses than in small doses more frequently repeated. I only observed the unpleasant effects of an over-dose of quinine in one case, and that soon passed over; in no disease have I seen quinine so well borne.

In many cases vomiting gave us much trouble, by interfering with a most essential indication, viz. sustaining the patient by good broths and food of easy assimilative capacity. I found nitro-muriatic acid (equal parts of each acid) given in doses of six or eight drops in water, and taken after food, well borne in some patients, who did not bear either the iron or chlorine mixture well. Cathartics, or emetics, and depressing expectorant mixtures, are not admissible in this disease, except at the outset, and their utility even then is doubtful, except in the cases before mentioned.

In one case of diphtheritic croup I gave bromide of potassium in a strong decoction of rad. seneka, and the result was very satisfactory. I added to each teaspoonful dose of the decoction half a grain of bromide of potassium, and gave it once in three hours. The patient was aged nine years, and as I had failed to induce vomiting by the use of the alum mixture, I did not feel justified in giving calomel and ipecac, or the antimonial preparations which often prove efficient remedies in idiopathic croup. I was much gratified with the recovery of what seemed a dangerous case of secondary croup, under the use of the bromide of potassium and seneka. The diminished vitality which is usually found in these cases where croupy symptoms follow diphtheritic fever, makes them fearful cases to the physician, as well as to the parent. These cases cannot safely be treated as we would treat primary croup. It would be the veriest lack of wisdom in me to deduce from one successful case, a rule of general treatment; but from the experience recorded by others, I would hereafter try the bromide of potassium in secondary croup, with debility as a symptom.

The stage of collapse, which, in some of our patients, appeared within a day or two from the attack, was sometimes attended by a diminished secretion of urine. This, on being tested, we found in three cases to contain albumen. In these patients external stimulation over the kidneys, such as dry cupping, sinapisms, and turpentine stupes, were used with good results. Alcoholic drinks in aid of quinine, general stimulants and nourishing broths seemed useful in some cases. But in some we found that the free use of "good sound cider," as the farmers call it, agreed better than ardent spirits.

We used in one family, where two cases of albuminous urine appeared, cider freely, which had been kept from passing into the stage of acetous fermentation, by adding to each barrel two or three quarts of bruised horse-radish roots, after the cider had been three weeks barrelled. This, like mustard-seed, and the sulphite of lime, seems to prevent further changes in the cider for a long time. The patients usually craved a stimulant and an acid drink, and the cider relishes finely. In the cases of albuminous urine it operated with marked remedial effects. The soured cider, containing more alcohol than that in which fermentation has been arrested, was more useful where the patients required free stimulation. It was given either

diluted with water and sweetened to please the taste, or where its diuretic effect was chiefly sought in effervescing draughts, made by adding to it bicarbonate of soda or potash.

As an article of diet, remedial, and yet palatable, I would recommend, where they can be obtained, sour baked apples, mixing the tender pulp with sugar, or giving them alone if the patient so prefers them. For many years I have used apples in this way as *the diet par excellence* in scarlatina, and how many grateful little ones, nauseated with pap, porridge, and panada, have risen up to call me blessed, for the grateful change to the apple diet.

In regard to the local treatment in diphtheria, after consulting physicians who have seen much of the disease in the city of Syracuse and the village of Goddes, and adding their experience to my own, candor compels me to confess, that the so much used and commended "nitrate of silver" often fails to remove the false membrane, and change the abnormal action of the secreting surface to a condition of health." In mild cases it is needless, in severe ones too often useless. However, in those terrible sequences of diphtheria, secondary membranous croup, it must be used often, if at all, at least once in three or four hours, and of a strength not less than from forty to sixty grains to the ounce of water, and applied with a eurved probang.

To prevent the secretion from forming again after removal (as it often does), I would use tannin and dried alum, applied with a soft linen rag or on the moistened finger to parts within reach, and blown into the throat through an ivory or glass tube, or two or three quills introduced into each other, answer a good purpose; no harm follows inhaling this powder, as a short paroxysm of cough clears all out again.

I apply externally over the throat salt pork, moistened with turpentine, and quickened with pulv. sem. sinapis, or capsicum, if need be. For a gargle, the following is my preference, after trying a variety: \mathcal{R} . Hyd. Chlor. Ammoniacæ 3 ij.; Sodæ Muriat. 3 iv.; Pulv. Capsici 3 ij.; Vinegar 3 ij. Add one and a half pints hot water; cool, and use it freely. If any is swallowed, no harm follows. In children too young to gargle, apply with a soft linen rag. In cases where the secretion from the nose, throat, or ear, is offensive, I have used the following: \mathcal{R} . Chloride of Soda 3 ij.; Chlorate of Potash 3 i.; water, four ounces: with good effects. I tried mur. tinct. ferri as a local application to the throat, and believe it is not as good as nit. argenti.

I have used in a few mild cases, as an internal remedy, a solution of vinegar and muriate of soda in water, covered and quickened by the addition of a little capsicum or piperine, and I must acknowledge that these cases did as well as any that I treated. If I could not get the *chlorine mixture* before described, I should feel able to find in the farmer's pantry, a mixture neither destitute of chlorine nor remedial virtue. The chlorine mixture is usually so well borne by the stomach, so compatible with the use of sustaining food, and, by many years' experience, I have found it so well adapted to the treatment of that congener of diphtheria, scarlatina, that I used it in most of my cases from the first; adding a little morphine, or paregoric, if required, and increasing the proportion of acid, or adding the iron if my patient tended downwards, and the stomach would bear this addition.

From what I can gather from the recorded or narrated experience of others, and my own knowledge of the disease as gleaned from a limited number of cases, I have concluded that diphtheria is a blood-changing disease, and that lesion of function in the spinal nerves occurs early in grave cases; that we must not wait for sinking, but if possible anticipate and prevent it; and finally, that to *oxygenate the blood*, and rouse and vitalize the nervous system, are the leading indications to be sought.

RECORD.—M. Ricord is said to have the largest practice in France; it is worth 300,000 francs a year.

CIRCUMSCRIBED ENCEPHALITIS,

TERMINATING IN RAMOLLISSEMENT AND PURULENT INFILTRATION,

WITHOUT PARALYSIS.

By NELSON S. DRAKE, M.D.,

OF BROOKLYN, N. Y.

THE particulars of the following case appear to me of sufficient importance, and its features of sufficient practical interest, to engage the attention of the profession.

The patient, a Scotchman, aged thirty-two years, of robust constitution, had been engaged in mercantile pursuits, but having met with severe reverses during the last panic, he was reduced to a subordinate position. His mode of life had been rather generous; he was accustomed to the use of liquors, but not to excess; of tobacco he was inordinately fond, both smoking and chewing; his general state of health had, however, been good up to the commencement of his late illness, which is alleged to have taken place in the early part of October last, when he evinced signs of mental difficulty. The family informed me that during a period of about three weeks the patient had become somewhat incoherent, thoughtless, and loquacious; that furthermore his memory had decidedly failed him; that he had been deprived of nocturnal rest, whereas he had passed his days in somnolency from which he could be roused but for a few moments; that his attention could be engaged upon any subject but temporarily; and that he also complained of fulness and heaviness of his head. This is about the substance of his previous history. The family having become apprehensive of the state of his mind, my professional services were chiefly required in relation to that question.

I found the patient at eleven o'clock A.M., on the last day of October, apparently soundly asleep upon a sofa, with a full pulse of sixty; the temperature of the skin above the ordinary standard; his head being still warmer and somewhat flushed; his breathing was rather heavy and moderately stertorous, which, however, was alleged to be his ordinary mode of sleep; his respirations were fourteen per minute. I had some difficulty in arousing him, when he seemed bewildered and embarrassed; he excused himself, apologizing for his condition, properly and intelligently. Although he recognised me at once, as a person he had seen, and knew me as the physician to his family, he was still unable to remember my name. In our conversation he made continual misstatements; mentioned occurrences which had no reality; his answers were ready and prompt, but given without reflection; it was with great difficulty that I could engage his attention for any length of time upon any subject; he would either turn to other matters, or fall asleep; the latter symptom was obviously prominent. His gait was erect, but slovenly; his speech slightly impeded, a kind of thick, hurried, irregular articulation; he put out his tongue towards the *right* side; his mouth was also slightly drawn in the *same* direction, while ptosis of the left eyelid was present; the eyeballs, however, moved correctly; both pupils were slightly contracted without readily dilating, but there was no intolerance of light; there were no noticeable deviations of the other senses. At this time he had been detained from his business only a few days, and that by the earnest solicitation of his family; his time was passed when not sleeping, and generally in the night, in roaming about the house, reading the daily newspapers, smoking, and chewing tobacco; his appetite inordinate, and his bowels very sluggish. The case appeared to be one of vascular turgescence of the brain, associated, probably, with centric lesion of a more grave nature.

With this view of the disease, I could expect but little from medication; the treatment, therefore, simply consisted in fulfilling, as far as was possible, the indications presented; the diet was restricted; derivation upon the bowels

was promptly instituted; cold applications were made to the head; local depletion was moderately employed; counter-irritation was resorted to; and a mild mercurial impression was obtained endernically.

As had been anticipated, this medication made no impression upon the progress of his disease, and my friend, Dr. H. S. Smith, was requested to join me in the further management of the case. It is gratifying to me that the counsellor coincided with my views and in the plan of my treatment, to which opiates and gentle stimulation were incidentally added. The progress of the disease, however, induced the family to request further counsel, and Prof. Willard Parker was consequently invited to see the patient; but neither in diagnosis nor in treatment was any alteration suggested by him; in fact, there was perfect unanimity on every point, and especially in the prognosis of a speedily fatal issue. This event occurred on Thursday, November 12th, thirteen days from the commencement of the treatment. It should be stated here that a few days before his death the patient gave signs of great cerebral excitement; however, no convulsions or extended muscular paralysis presented themselves.

The post-mortem examination was kindly performed by Dr. Louis Bauer, and it is to his accurate dissection that I am indebted for the following precise account of the pathological changes which had taken place. Since the disease had evidently its seat in the brain, the autopsy was restricted to an examination of the cranial cavity. The removal of the scalp showed the integuments rather pale and bloodless; the calvarium being removed and exposed to light appeared also pale and bloodless; the sinuses of the dura mater bled only moderately, and that membrane parted easily from the bone; the whole surface of the large hemispheres was vascular and evidently congested; the arachnoid was raised by oedematous effusion and separated readily; the various slices of the large hemispheres were punctated with blood, and the general consistence was rather below the ordinary firmness of this substance; the softening became more evident towards the roof of the cerebral ventricles, which were filled with bloody serum; the right ventricle, however, contained the largest quantity, and was almost distended thereby; the choroid-plexus was highly vascular, somewhat thickened, and at its entrance below the posterior margin of the corpus-callosum, large vessels could be discerned; both striated-bodies and optic thalami were considerably softened; the left, however, in a higher degree; the surrounding parenchyma of the posterior and middle lobe of the left ventricle was so much softened as to be considerably broken down; the commissures, the septum-lucidum, the fornix, the central portion of the corpus-callosum, the corpora-quadragemina, and the crura cerebri, were of ordinary appearance and consistency; the aqueduct between the third and fourth ventricle was open, the latter contained but a few drops of bloody serum; probably it had contained more, for its size exceeded the ordinary dimensions and emptied anteriorly by the horizontal position upon the table; a communication between the fourth ventricle and the spinal theca could not satisfactorily be shown by a fine probe; the roof of the fourth ventricle and the hemispheres of the cerebellum were moderately softened; not so, however, the crura-cerebelli. The pineal gland presented nothing abnormal. The brain was now turned, and its base exposed to view; the middle lobe of the left hemisphere was found to be entirely broken up, softened, and discolored in as far as the grey substance, at least, was concerned; the material contained small coagula of blood, and was so soft as to be compared to inspissated purulent matter; it could easily be extended, and its general character was that of purulent infiltration; the pons-varolii and the medulla oblongata were intact. At the corresponding portion, in the left middle fossa of the cranial cavity, the dura mater had lost its shiny, fibrous, and bluish-white appearance by discoloration and superficial destruction. At the basis crani there was a great deal of bloody serum more or less mixed with the broken-down material of the

left hemisphere, and a considerable quantity of that serum oozed out from the membranes of the spinal cord.

From the results of this post-mortem examination, it is evident that the patient suffered and died from acute and circumscribed encephalitis, which resulted in ramollissement and purulent infiltration; that the disease was chiefly restricted to the cortical substance of the affected lobe; and that the more central and essential structures were intact or but moderately affected. Whether the occlusion of the spinal theca, at its superior termination in the fourth ventricle, had caused the disease, is very doubtful; whereas it cannot be denied that it has accelerated its fatal termination, and all these facts account very readily for the absence of serious mental aberration or muscular paralysis; that the cerebrum was extensively involved in this case was very evident; but a specific diagnosis of the seat of the disease could not be easily made, in consequence of the almost entire absence of paralysis, or of convulsive actions in circumscribed parts of the nervous system. From the general character of the symptoms, however, I decided upon the inflammatory type of the disease; and considering the youth of the patient and his robust constitution, I should have resorted to active antiphlogistic treatment, had not the patient himself opposed it. From the results of the post-mortem examination I have, however, become convinced that no medication, however systematic or energetic, could have changed the course of the already initiated disease, for it is more than probable that the softening of the cerebral substance had already commenced before the patient came under my care. The interesting fact, nevertheless, remains that the brain could have been disintegrated to so large an extent without paralysis and without extensive qualitative mental aberration.

Reports of Hospitals.

BELLEVUE HOSPITAL.

THREE CASES OF TETANUS.

CASE 1. Idiopathic Tetanus.—*Symptoms temporarily relieved by Quinine.—Permanent relief by the administration of whiskey in large quantities.*—(Reported by P. C. BARKER, MD., House Physician.)—Thomas McAdams, æt. nineteen, born in Ireland, of healthy constitution and temperate habits, was admitted to Bellevue Hospital October 22, giving the following history.

History.—For four months during the past summer and fall he worked at Haverstraw in a brickyard. Leaving there about the 1st of October, he came to New York, and went to work as longshoreman. While at work in the hold of a schooner October 14, he got very warm, and sat down in a current of air covered with perspiration. During the following night, he was seized with violent substernal pain, and cough. At the same time a severe pain began in the left groin. On the next morning, trismus was developed, slight at first, and attended by some stiffness of the muscles of the neck, abdomen, and legs. From this time till that of his admission, the stiffness steadily increased. The substernal pain, which was at first superiorly, moved down towards the ensiform cartilage. No pain in the back or head. The pain in the groin continued, showing no tumor or discoloration. He perspired profusely during the paroxysms which occasionally occurred, from the first.

Symptoms on Admission.—He walks with difficulty, being unable to flex either the thighs or legs. He moves his arms very well. The abdominal muscles are rigid. He suffers from occasional startings and increased rigidity of the muscles from which he sweats profusely, has considerable dyspnea, and suffers great pain. His countenance exhibits the true risus sardonius. The trismus is complete. All the food taken must be fluid. Two or three days previous to his admission he received a fall when attempting to walk,

and broke one of his central incisors. Through this opening he receives all his food. Bowels very slow; pulse normal; sleeps very little. Physical examination of thorax reveals the existence of bronchitis. Coughs a little, raising a tenacious sputum.

Treatment.—Coming as he did from a region notorious for its miasm, it is decided that quinine in large doses shall be given. Ord. 3 i. daily in divided doses. The diet to be generous. Oct. 24.—The paroxysms return less frequently, are milder, and the rigidity is much less marked. He can open the mouth a little. Oct. 25.—Rigidity nearly disappeared. Slept very well last night. Ordered dry cups to spine. Oct. 26.—Since yesterday's note the rigidity and spasms have returned fully as severe as at first. The teeth are again closed, the sardonic grin again overspreads his face, and he lies as stiff as if frozen. It is deemed advisable to resort to the stimulant treatment, as quinine has been carried to cinchonism. Ordered whiskey $\frac{3}{4}$ ss. every fifteen minutes. Beef-tea and eggs as before. Oct. 27.—Paroxysms a little less severe, and less frequent to-day than yesterday. Treatment continued. Oct. 29.—Very little better than on the 27th. Ordered whiskey reduced to $\frac{3}{4}$ vi. daily. Morphine to be given in sufficient quantity to bring him fairly under its influence, and maintain it. Oct. 30.—No spasms; rigidity less marked; the sweating still continues. Respiration 14, sleeps considerably. Nov. 1.—Rigid again; whiskey resumed, $\frac{3}{4}$ xxx. to be given daily. Nov. 2.—The rigidity is again less marked. He lies on the side and can flex his legs somewhat. Spasms infrequent. Appetite good, bowels still very slow; enemata given on alternate days. Sleeps very well. Nov. 4.—Whiskey increased to $\frac{3}{4}$ xlviii. daily. Nov. 5.—Last night for the first time he showed the usual effect of intoxication, became very hilarious, and made considerable noise. Same quantity of whiskey continued. Nov. 7.—Did not sleep very well last night, still he is improving. No more symptoms of intoxication. Nov. 9.—Improving steadily. Whiskey reduced to $\frac{3}{4}$ xxx. daily. Nov. 12.—He can walk by holding on to something. Complains of cold feet, and believes that this condition excites spasms. The abdomen still very tense. Nov. 14.—Walks about. Had a momentary spasm last night. Says he feels well to-day. Nov. 30.—He has steadily improved since the last note, so much so that only a little stiffness remains in the legs. The abdominal walls, however, are still rigid. No whiskey has been given since the 21st; having been steadily diminished since the 9th inst. Dec. 3.—Discharged, well.

CASE 2. Lacerated Wound of Fore-arm—Tetanus—Death. (Reported by HOWARD PINCKNEY, M.D., House Surgeon.)—Thomas Hughes, aged sixteen, born in Ireland, laborer, admitted September 13, 1860 (service of Dr. Meier), with a wound of fore-arm caused by a circular saw. The muscles and tendons on radial side of fore-arm were very much lacerated, and the radius was cut completely through; the radial artery was not injured, but there was considerable hæmorrhage from the inter-osseous artery, which was controlled by strongly flexing the fore-arm, and confining it in that position by a roller bandage, thus making pressure upon the brachial at the elbow. Sept. 14.—The fore-arm was placed upon a splint, and cold water dressings applied. Sept. 23.—Patient has been doing well until this morning; he complains of some stiffness in moving the lower jaw. Ordered brandy. Sept. 23, 6 p.m.—Patient can only open his mouth to a very limited extent, head thrown back, but no rigidity about the neck. Profuse perspiration; pulse 140, and feeble. Ordered brandy $\frac{3}{4}$ ss., and tr. opii gtt. xv. with beef tea every hour. Patient was placed in a warm bath with potass. carb. $\frac{3}{4}$ iv. dissolved. Sept. 24.—Patient slept pretty well last night; he is unable to bring his head forward this morning; pulse 140; same treatment continued with dry cups over spine. Tetanic physiognomy well marked. Consultation was held this morning, when amputation of fore-arm was decided upon, but the mother of the patient would not consent to the operation. 6 p.m.—Tetanic symptoms growing more marked. Ordered,

R Ext. cannabis india grs. ij., every three hours. Brandy and beef-tea as before. Sept. 25.—Patient has a general convulsion, which was partially relieved by inhalation of chloroform. Opisthotonos well marked. Ord., R. Tr. assa-fœtidæ and camphor, $\frac{3}{4}$ ss. q. h. The patient has had two convulsions since morning, and at 4.30 p.m. he died. No autopsy allowed.

CASE 3. Trismus following the Opening of an Abscess of the Thigh.—Recovery under the Use of Stimulants and Anodynes. (Reported by WALTER T. COLES, M.D., Senior Surgeon.)—Wm. N., æt. twenty-seven, a native of Ireland, unmarried, a shop-keeper's clerk, entered the Hospital on the 25th of August, 1860. He was then suffering with pain and tenderness about the right trochanter; the pain was felt in front between the pubes and the trochanter major. Fluctuation was at length discovered a little below the trochanter, and an opening was made at that point. The abscess discharged freely for several days, when suddenly the flow of pus ceased, and symptoms of trismus appeared. An attack of bronchitis occurred about the same time. He was treated with tinct. opii gtt. x. every hour, administered in an ounce of brandy, the amount being diminished as the symptoms improved. The symptoms returned when the treatment was omitted. These remedies were therefore continued for several weeks, in gradually diminished quantities. The symptoms at length disappeared.

NEW YORK MEDICAL COLLEGE.

PROF. GARDNER'S OBSTETRIC CLINIC.

January 9, 1861.

REMARKS UPON INTRA-CERVICAL METRITIS.

CASE 1.—Mrs. P.—, æt. about 30, the mother of one child three years old, since which she has had three miscarriages between the periods of two and a half and three and a half months of utero-gestation. Complains of great pain in sacral region, in the pubes, with sensations of weight and dragging in the inguinal regions.

The Professor stated the rational systems in the case indicated unquestionably some chronic disease of the uterus. Of course it was impossible to make an exact diagnosis among the various affections of the organ which might be the cause. Nevertheless, one might imagine, and in this case he thought that the group of symptoms, their commencement immediately after the first pregnancy, the repeated abortions at about the same period of gestation, indicated *fissure of the cervix*. This difficulty was not an unusual one. The os uteri was frequently torn during labor; some marked instances of which the Professor narrated from his experience. Sometimes these were imperfectly healed. They never united by first intention, the tissue not being sufficiently vitalized for this. They frequently left a granulating surface constantly secreting pus, a nidus for any inflammatory disease, needing but a small irritation to be developed, and when this occurred in connexion with a subsequent pregnancy an abortion was apt to be the result. This sometimes occurred from the inflammatory excitement being transmitted to the parenchyma and tissues of the body of the uterus, sometimes from the fact that the uterus in its development dragged open the fissures, thereby producing either such an excitement that contractions are gradually produced; or more frequently the tearing apart of the fissure is followed by slight sanious weeping, gradually become more and more deeply tinged with blood, until finally such a hæmorrhage is set up that it seriously interferes with the normal functions of the parts, by the loss of blood, destroying the life of the ovum, ending in uterine contraction, and its expulsion. This may be the cause of the frequent abortions of the patient now before us. I will now institute a vaginal examination to see if the physical signs correspond with this view.

Gentlemen, the theory for some abortions which I have just presented to you is unquestionably often correct, but in the case before us it is not the true one. The finger finds the os somewhat hypertrophied and tumefied, but with no evidences of fissure; the os presents no evidence of any previously existing or present laceration, and we must seek further for the diagnosis, and (introducing the speculum) here it is plainly perceptible, and if you will pass around, you may, in turn, all see the os tincæ exposed to view, and note its peculiarities.

In the first place you will note the contrast which this presents to those which I have previously shown in the unimpregnated female. The os is not, as in them, round, of a regular circular shape, but oblong, almost crescentic in form, and having its length from one side to the other. This is the well known and almost invariable result of a full utero-gestation. I say of a "full utero-gestation," because I have frequently noticed that such alterations in the shape of the os are frequently not produced when an abortion has occurred even as late as the end of the third month.

Next, you will perceive that the entire vaginal cervix is hypertrophied, so that its entire extent is not displayed by this quite large glass speculum; that it has a turgid appearance; and although it is entirely free from any abrasions, erosions, or ulcerations, that it is the seat of chronic congestion evidenced by its deeper hue as contrasted with the vagina, and even with the outermost portions of the cervix itself.

Finally, you will note more particularly the os itself, somewhat everted, and the protruded membrane of a dark red, livid color, and the pellucid, tenacious albuminous secretion exuding from it. In these symptoms we have the material for the diagnosis of the case. It is one of pure uncomplicated *endo-metritis*. I wish you especially to note the symptoms here presented, for it is a type case of a disease which will form the subject of one of my next week's lectures. I will now make an application of the solid nitrate of silver, by passing a piece into the cervical canal.

You will now observe that I have passed this piece into the canal to the depth of an inch and a half, and that the stick, which was an inch long, is now reduced to almost two-thirds of an inch in length. This was not effected by its being dissolved, but by the extremity being broken off, owing to the brittleness of the stick. This portion is now an inch within the cervix, but it is of no consequence. Formerly it was supposed to be a dangerous thing to break off the crayon thus, but experience has taught me to disregard it entirely, because in the majority of cases the irritation caused by the caustic will generally result in such contractions of the cervix as to expel the small piece as a foreign body. I have even seen it ejected with so much force as to be thrown through the speculum a foot or two from the person, and as rapidly as it could be inserted; and even where there is so much hypertrophic infiltration into the parenchyma of the os that it has lost its contractility, the bit of lunar caustic is speedily surrounded by a covering of coagulated albumen, which every moment becomes more dense and dry, and by abstracting the moisture from it, it is soon reduced to a brittle condition—sometimes the centre remaining unchanged—and thus isolated, it remains till expelled from the cervix by the uterine exhalations collected above. This process is often a matter of some time, even of days, and not unfrequently its exit is accompanied by some uterine pains resembling those of labor. Even if the nitrate is entirely dissolved, no ill result is to be feared; the caustic properties of this preparation are so limited that the residence of this bit produces no more cauterization than was effected when the portion to which it had been attached was withdrawn. This is not, however, the case with some other caustics used in these diseases, as the caustic potash and the potassa cum calce, which continue to destroy the tissue so long as they remain in contact.

The patient will return next Wednesday, and we probably will find her much relieved, and in a few weeks she will be entirely cured. She needs no medication, and no treatment

during the interval till her next appearance, except injections of cold water, as cold as can be pleasantly borne, alike for cleanliness by the removal of the secretions, and also for its antiphlogistic properties.

A member of the class, while passing round, has inquired *how often such application should be made?* The inquiry is a pertinent one—an undeviating rule cannot be given; but the following facts will serve for a guide. The effect of the caustic is to cover the diseased portion with an eschar—that produced by nitrate of silver scarcely deserves so strong a name, as it but little more than forms a film of albumen, with an accompanying stimulating and astringent corrugation and contracting of the inflamed tissue—this remains closely adherent for several days, and not until this is removed can a new application be usefully made. When the disease is upon the exterior of the vaginal cervix, this falls off in from three to seven days, and the application may then be repeated. If it is desirable to hurry the case the applications may ordinarily be made as often as every five days.

The same rule holds good when the applications are *intra-cervical*, but the eschar is not thrown off nearly so quickly as when upon the exterior. The coagulated albumen in the form of a plug is found, often on the eighth day after, protruding from the cervix. This may be seized and sometimes pulled away, and if not attached, the application may then be repeated. Oftener, however, at this date, it is but partially loosened, and any attempt to withdraw it, is followed either by its breaking off, or worse still, by detaching it, when its withdrawal is followed by a free flow of blood from the hypertrophied papillæ or ovulæ Nabothii which stud this canal, and thus the too early attempt to repeat the treatment is defeated. If there is much irritability of the cervix, or much uterine secretion, then this plug is thrown off in a week's time, but ordinarily, in chronic cases, ten days must elapse between the applications.

And how long does it take for a cure to be effected? Ordinarily, we may say, in three or four months, although this may be protracted by various causes, by the patient "catching cold," falls, shocks, etc., ad libitum to a twelve-month.

The applications, however, need not be applied so persistently after the second month. Bear in mind, that even when making the application every week there are but three opportunities for the topical treatment of the menstruating woman. The tendency of this disease is to cure itself, and it would do so, as is seen in parturient, and especially nursing women, were it not for the hyperæmia of menstruation. Like the frog in the well who jumped up three feet every day, and fell back one every night, the patient is getting well three weeks and getting worse one in every month. My rule then is, to make the applications as frequently as possible for the first two months, say six or seven times; by this time the disease has diminished materially, and the patient would speedily get well were it not for the menstrual week, and my efforts are mainly limited to overcoming their effects, which I do by a single application each month, after each period, and this even when the disease is apparently entirely cured—unless pregnancy ensue, which is very apt to occur—for if any disease is left, it is very apt to be nursed and renewed by some disturbance in the catamenia, or by a severe cold, extra physical exertion, or mental or moral impressions. More frequent applications than these, I am convinced, may benefit the physician's pocket, but surely will not benefit, but even retard the cure of the patient. Time is requisite to procure the absorption of the effused material, causing the hypertrophic condition which is retarded in this stage by too frequent interference.

The professor then showed a case of double inguinal hernia, in a woman of sixty, resulting from the straining during her pregnancy many years since. The hernias were as big as oranges, easily reducible, and only needed a truss to support them. The same patient also had a vesico-vaginal fis-

tula, produced by the ravages of cancer of the uterus, which was exhibited to the class. Other interesting cases were also shown of chronic hypertrophy of the cervix, ulcerations, etc.

American Medical Times.

SATURDAY, JANUARY 26, 1861.

HEALTH OF NEW YORK IN 1860.

THE annual report of the City Inspector of New York, for the year 1860, has just appeared, and contains its usual variety of loose and often absurd statements in regard to the public health, and deductions, the result of the most profound ignorance of sanitary science.

It appears that the city was unusually healthy during the past year, being visited with no epidemic except scarlet fever, which was not severe or of long duration. Still the aggregate number of deaths was 22,710, being an increase of 1,065 over the year 1859, and giving a per centage, according to the recent census, of 1 in 36 of its population. This is the highest death-rate of any civilized city in the world, and equals that of many cities during the prevalence of such epidemics as cholera, yellow fever, &c. The City Inspector casts about for some scapegoat for this alarming state of the public health, and is again obliged to bring forward the often exploded fallacy, that this excessive mortality is principally due to emigration. Now the simple truth is, that the emigrants are an exceedingly healthy class of people, as is shown by the fact that but 1.31 per cent., during the last ten years, have died in transitu. Besides, of those who arrive here, the Commissioners of Emigration state officially that but about 3 per cent. remain in the city. Yet the City Inspector, without a shadow of foundation for the assertion, places it at 50 per cent. ! This miserable subterfuge will not serve his purpose any longer, and may as well be abandoned. He does not know what the mortality of London is for the year 1860, but thinks it cannot differ much from that of New York. We can inform him that had the public health of New York equalled that of London in 1860, more than 2,000 of its citizens, now in their graves, would have been living, and upwards of 52,000 cases of sickness would have been prevented. To one so accustomed as the City Inspector to count mortality statistics by the thousand this difference may seem slight, but to the philanthropist such figures are of terrible significance. In his efforts to explain the high mortality of the city, the City Inspector takes the ground that the death-rate of a city must increase in a direct ratio with the increase of its population, and hence he deprecates any comparison of the health of New York now, with what it was 60 years ago. According to this statement, the death-rate of New York will necessarily increase from year to year. A more monstrous proposition was never made, even by a New York official; and such a deliberately expressed opinion proves how utterly destitute of scientific information is the Health Department of New York. What are the facts? The death-rate of London 200 years ago, was as 1 to 20 of its population; this year, with a population more than four

times as great, its death-rate is reduced more than half, being 1 in 46. In the language of this report, "these official data speak for themselves, and require neither the aid of subtilizing calculation nor interested selfishness to pervert or mystify." We can only admit the correctness of this conclusion of the City Inspector, on the premise that the present Health Department shall continue to exist. No rational person doubts that if New York had the same efficient, scientific health surveillance as London, her mortality returns would be regularly reduced from year to year, however her population increased, until they reached a standard not greater than that city. Could our city even maintain its position, and not retrograde, it might be cause for gratulation, but it is fearful to contemplate the real import of this warning, that its death-rate is to increase with its growth. Says an earnest and life-long laborer among the poor of New York:

"Make New York as healthy as it was fifty years ago, and more than eleven thousand lives would be saved every year. These figures are official, and hence unexaggerated. And yet this excess of deaths exhibits but a tithe of the evil. It is ascertained that there are twenty-five cases of illness, on the average, which incapacitates for labor, to one death; so that there are attendant on these deaths more than *two hundred thousand cases of sickness annually*, and more than *five hundred persons are daily* languishing on beds of sickness from preventable causes! Who can gauge the dimensions of such a misery? The bereavement, the anguish, the poverty, the suffering, the wretchedness of widowhood and orphanage, consequent upon such a waste of health and destruction of human life, are incalculable."

The City Inspector seems to think New York so great, that she is a law unto herself, and will not admit of comparison with neighboring cities, nor even, as we have already remarked, with herself, of former years.

"New York is the representative city, the great metropolis of the Union; and in her movements, character, trade, capital, population, energy, emigration, and enterprise, she is the city *sui generis* of the American continent, and the third of the Christian world. To detract from her well deserved claims to the recognition of being among the most healthy of the great cities of the world, comparison is made to the era when she had a population of sixty thousand souls. A comparison has also been instituted between the general health of this city and that of a small New England city, or rather a large village, to which the name city is applied, which, from the paucity of its population, and its semi-rural character, is liable to a small portion of those diseases to which a large metropolis, communicating with every portion of the world, is exposed. Such comparison might go farther, and even be made to extend to scattered rural populations; but as it is with the condition of a densely crowded city that we have to deal in the application of the rules of sanitary science, all such pictures of contrasted healthiness and unhealthiness are utterly out of place in the application of the science of health to a large population."

Whether the "small New England city, or rather large village" alluded to, is Boston, or Providence, or New Haven, we have no means of even "guessing," but as the City Inspector occasionally condescends to allude to London, we venture to suggest that its health authorities do not hesitate to compare the health of that considerable city with, not only inland towns, but even with the rural districts. Let him mark their language: "So late as 1854 London was more fatal to life than the country generally, but it has since been so improved *that its mortality in the*

last of the three years has been less than that of the country in the two previous years, being nearly level with the average of all England and Wales." But it is not from any of the alleged differences between neighboring cities and New York, that the City Inspector refuses this comparison, but simply on account of the striking discrepancies in mortality, which tell so powerfully against the rotten, inefficient department which he is endeavoring to hold together. There certainly can be no great injustice in comparing the death rate of New York with that of Philadelphia, which, if not on an equality with New York, cannot properly belong to the catalogue of small New England cities or large villages. The mortality of that city for 1859 was one in sixty-four of its population, or but little more than half as great as New York. Had the health of New York for the past year been equal to the health of Philadelphia for the year preceding, 10,000 lives would have been saved! These fearful aggregates ought to startle even a City Inspector.

We have not space at this time to expose all the fallacies and sophistries of this remarkable document, and must recur to it again. There is but one good purpose which it seems to us that it can serve, viz. to convince intelligent citizens of the absolute necessity of removing from responsible positions men who do not know, and cannot learn, the true nature of the duties which they are called upon to perform.

NEW YORK STATE MEDICAL SOCIETY.

THE anniversary of the State Medical Society will be held on the 5th, 6th, and 7th days of February. We were about to call the attention of the profession of the State to the approaching meeting, and urge the claims of this Society upon their sympathies and support, when the following timely remarks by the Secretary, SYLVESTER D. WILLARD, M.D., of Albany, were received, which we cheerfully transfer to our pages:—

The medical profession in the State of New York look forward to the anniversary meetings of this Society with great interest. Its meetings are held pursuant to statute, in Albany, on the first Tuesday in February of each year. With the exception of the American Medical Association, which had its origin in the movements of the State Society, no medical body exerts or is likely to exert a greater influence in this country. Unlike the American Association, it is not so large as to be unwieldy in its own movements, while it possesses the energy and working elements of that body. Its yearly transactions are published under the auspices of the State, and gain a large distribution. There is scarcely a state in the Union where the volume is not sought by members of the profession. Through the International exchanges made by the Regents of the University, it finds its way to Great Britain and the Continent. Few institutions have equal facilities for building and extending their reputation. The Society has exerted a steady and uniform influence upon medical science and medical ethics during the period of half a century. It has been consistently conservative, avoiding slow-paced fogysm on the one hand, and speculative air-castle enterprises on the other. It has avoided the foolish ultraisms and the contentious questions into which the public and some medical men have fallen; and it has held itself aloof from narrow-minded medical philosophy.

Its teachings have been bold and simple, its policy wise and liberal, and it has aimed to protect the feeble and ignorant, while it has devised measures for the care of the unfortunate, and thrown about human life and human

health greater security. It has labored quietly and not inefficiently for the public good. It constantly aims at practical results, and it presses steadily forward to achieve them. Its influence having been favorably progressive, and distinction having been acquired, there is the greater demand for the constant exertions of its members to sustain and carry it forward to still greater usefulness. Its proceedings and its influences should furnish a yearly index of the advancement of medical science and the development of the advantages which rational medicine confers upon the public, and the additional safety that it guarantees to human life, while in its every act it should reflect honor upon the State by which it is so generously fostered. To this end every member should feel himself personally obligated, and for this purpose he should bring to each annual meeting the result of his most careful investigations in the several departments of medical science. Each volume of the Society's Transactions should become more and more valuable as a repository of medical knowledge.

The State Society should not be contented with a local reputation, but should be satisfied only when its favorable representation is acknowledged wherever Medical Science is taught. Let it be remembered that the achievement of this reputation rests upon the efforts of each individual member. There is talent and energy in the medical profession in the State of New York, and they will assuredly accomplish this desired result.

The labors of the Society will be greatly facilitated at the annual session, by delegates reporting themselves promptly, *with their credentials* to the Committee on Credentials, and by an early notice of the papers to be read, and the length of time they will occupy. Unless the time of the session is economized, the Society will have to divide into two sections, and thus lessen the interest of its deliberations.

It is pleasant to add, that the Connecticut Medical Society, desirous of expressing the cordial good-will and fraternal feeling which should ever exist between societies having common and important interests to accomplish, have appointed several delegates to attend the annual meeting at Albany, on the 5th of February next, among whom are the Society's President, Dr. Ashbel Woodward, and the Secretary, Dr. P. M. Hastings, of Hartford. This will at least be one interesting feature of the next meeting, at which it is hoped every delegate and a goodly number of permanent members will be present.

AMERICAN MICROSCOPES.

We have heretofore had occasion to allude to the great value of the microscope in medical investigations, and we have also noticed with pleasure the increasing desire, on the part of medical men, to render themselves familiar with its employment. For the benefit of those who are entirely unacquainted with the peculiarities and comparative merits of different microscopes, it may be well to enumerate briefly the various instruments offered for sale by opticians. In the first place, it must be observed, that for scientific purposes, it is necessary that a microscope of a certain degree of excellence be employed. It is needless, therefore, to mention the numerous inferior instruments that are to be had, the defects of which are so great as to render them useless to the medical practitioner. Of the better class of instruments, microscopists are familiar with those of American, English, and Continental manufacture. As these differ from one another, they need to be separately noticed. Of Continental microscopes, those of Nachet, of Paris, have long and deservedly held the first rank. They are distinguished by simplicity, portability, and moderate cost. Possessing neither the optical nor mechanical perfection of English or American instruments, they are yet

sufficiently good for all practical purposes, and it is for this reason that they have been so generally used and admired. While admitting the general excellence of Continental microscopes, however, we must at the same time acknowledge the much greater superiority of those of English and American manufacture. Amongst the former may be mentioned those of Ross, Powell & Lealand, and Smith & Beck. In the microscopes of these makers, the highest degree of perfection is aimed at, both in the quality of their objectives, and in their mechanical appliances. The chief objection to them is their expense, which puts them beyond the reach of those who desire a good instrument at a moderate cost. In regard to microscopes of American manufacture, comparatively little has been written, and yet it is unquestionably true that they are inferior to none in the quality of their objectives or in general workmanship. The names of Spencer, Tolles, and Grunow are well known to most American microscopists, the production of each being distinguished by its own peculiar merits. Mr. Grunow has succeeded in giving to his objectives of high power a large angular aperture combined with a considerable and convenient working distance. The increased angular aperture which has been given to object glasses of late years, and which for certain purposes greatly enhances their value, has hitherto been attended with the serious drawback of producing a corresponding diminution in the working distance of the lens, this distance being sometimes so small, that many objectives, otherwise excellent, have thereby been rendered useless for ordinary purposes. In the objectives of Mr. Grunow's make, however, this difficulty has been obviated, and a large angle obtained with but little sacrifice of working distance. We have recently examined a one-eighth inch having an angular aperture of 150° , which could be conveniently used with thin glass varying from .0075 inch to .015 inch in thickness. The performance of this objective was admirable in every respect, and in comparing it with one of similar power recently made by Messrs. Powell and Lealand, it was pronounced to be superior by several able and competent judges. Its adjustment for thin glass was much facilitated by the plan adopted of causing the entire range of motion to be effected by revolving the collar through one-third part of a circle only—a mode which, we believe, was first suggested by Mr. Wenham.

In addition to his more elaborate and expensive instruments, Mr. Grunow makes those that are cheaper, and furnished with a more limited number of accessories. Amongst this latter class is a new pattern of "student's microscope," to which we would especially call the attention of medical students, as the best of its kind which, in our opinion, has yet been constructed. It comprises a stand with two eye-pieces, three objectives, the 1 inch, $\frac{1}{4}$ inch, and $\frac{1}{8}$ inch, and a bull's-eye condenser, mounted on separate stand. The instrument is sufficiently firm and heavy to be free from tremor, and is so arranged that the body can be inclined at any desired angle. A delicate fine adjustment is secured by means of a screw situated behind the stage, the coarse adjustment being effected by sliding the body up and down in a socket made of German silver. The objectives are excellent, and, with the two eye-pieces, give a magnifying power ranging from 50 to 700 diameters. The price of the instrument is \$75.00, including an upright mahogany case which is fitted up with a drawer to contain any additional apparatus that may be required.

There are doubtless many who would be glad to pursue the study of the microscope, but who are either unable or unwilling to expend what is necessary to purchase a first class instrument. To such persons we can confidently recommend the student's microscopes, as supplying, for a very moderate sum, all that is really requisite for either physiological or pathological investigations.

THE WEEK.

DR. L. H. GULICK, a distinguished missionary physician, who for several years has been laboring in the Caroline and Marshall groups of the Pacific, has, from time to time, by means of private circulars, called the attention of shipping merchants and philanthropists to the dangerous encouragement and consequences of licentiousness by seamen and shipmasters visiting the Pacific islands. Disregarding their official and moral obligations to respect the regulations and usages of civilized society, it has been customary from the days of Capt. Cook for shipmasters to make floating brothels of their ships whenever they call at any of those islands; and thus, the terrible consequences of syphilitic infection have cursed and blighted the masses of the population in Polynesia and Micronesia. We honor Dr. GULICK for his persistent efforts to diminish this evil, and he may be assured that the recent editorial comments of the Hawaiian newspapers are utterly opposed to the sentiments of the medical profession and civilized society. Among the fierce but manly tribes of the Kingsmill, and a few other groups, neither seamen nor syphilis have been permitted to touch their shores; and if Dr. GULICK and the missionaries succeed in preventing the introduction of the latter, the world will commend the efforts they have put forth for that purpose. Though the crime of spreading the infection of syphilis among an ignorant and helpless people may never be made punishable by law, it should, as far as possible, be prevented both by the sanitary regulations and the public sentiment of the civilized world.

In another column will be found an important communication from Dr. EDWARD R. SQUIBB, of Brooklyn, on the Law relating to the Inspection of Imported Drugs, to which we invite the earnest attention of the profession. Those not familiar with the nature of this law, will learn its great importance, and be impressed with the necessity of its faithful administration. The office of Inspector has, most of the time since it was created, been a sinecure because filled by unqualified men. With the change in the General Administration the opportunity again offers of filling this post with a competent officer, and there is reason to believe that the wish of the medical profession properly expressed with reference to that appointment would be granted. We hope the suggestions of Dr. SQUIBB will be promptly carried out by our state and local societies.

THE inquest in the case of alleged death from the use of chlorate of potash, mentioned in our news column last week, was not, as might be inferred from our language, completed. The medical testimony subsequently introduced was strongly against the supposition that this drug was the cause of death; and moreover, it is stated that the remedy was directed to be used as a gargle. When the inquest is closed, we shall endeavor to give the material facts.

THE Obstetrical Section of the Academy of Medicine, has elected DR. ALFRED UNDERHILL, *Chairman*, and DR. MORTIMER G. PORTER, *Secretary*, for the ensuing year.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Jan. 16, 1861.

DR. JAMES ANDERSON, President, in the Chair.

PRESIDENT'S INAUGURAL ADDRESS.—CHRONIC HYDROCEPHALUS; ENORMOUS HEAD.

DR. JAMES ANDERSON, the President elect, delivered his inaugural address. After thanking the members for the honor conferred upon him, and alluding to the responsibilities of the office, he reviewed the position and usefulness of the Academy in the scientific world. He urged the necessity of unity of action as the only means by which any advance could be made in scientific investigations. In the course of his remarks, he solicited each of the members to present during the year a paper upon some subject, and pointed out the benefit that would arise not only to themselves as individuals, but to the Academy as a whole, and concluded with some wholesome advice to the younger members, who, from diffidence, refused to take part in the deliberations.

CHRONIC HYDROCEPHALUS.—ENORMOUS HEAD.

DR. A. K. GARDNER exhibited a case of chronic hydrocephalus, and made the following statements in relation to it. The child was three years of age, born of German parents, and in the enjoyment of a fair amount of bodily health; the intellect, while deficient in power, is sufficient to allow him to spend most of his time with his toys, as well as he can in his necessarily prone position. The measurements of the head are as follows:—Horizontal diameter, thirty-two inches; from the tip of one ear to the other, twenty-three inches; from the os frontis, at the junction of the nasal bones, to the base of the occipital, thirty-seven and a half inches. In consulting records upon the subject, Dr. Gardner found one case given by Wrisberg, where the circumference of the head was thirty inches and a half; another by Meckel, in a seven months foetus, the horizontal circumference of whose head was sixteen inches, and the vertical diameter from the occiput to the vertex, fifteen inches. Other cases have been recorded where the circumference soon after birth, was seventeen, twenty-five, twenty-nine, thirty, and thirty-one inches. Prof. C. A. Lee gave a case on which he operated several times, the lateral of whose head at three months was twenty-four inches, and from the chin to the base of the occiput, twenty-three inches. In May, 1857, a child, aged nine years, was exhibited in this city: the head measured, horizontally, thirty-two inches, from the root of the nose to the base of the occiput twenty-five inches, from the top of one ear to the other twenty-one inches. It will be seen, said Dr. G., that the case now exhibited surpasses all these except the one in the museum of Meckel. The measurement of that case during life has not been given, but it may be inferred that this was not the exact measurement during that period. It, being a dried preparation, there is no statement whether the integuments were preserved or not. In several specimens which I remember to have seen present in the anatomical cabinets of Europe, while none excelled this one in size, they were all deprived of the integuments, and the bones were separated apparently in order to have their configuration exhibited.

DR. WATSON was under the impression that he had seen two heads larger than the one exhibited by Dr. Gardner. One of these was in Guy's Hospital, and was shown to him by Sir Astley Cooper, the other was in Mr. Liston's collection. Mr. W. regreted his inability to state the exact measurements.

DR. CONANT referred to a case which he had seen about a year ago. The child was nine years of age. The horizon-

tal circumference of the head was thirty-three and a half inches; from the tip of one ear to the other across the vertex was twenty-four inches. The enlargement commenced about three months after birth.

DR. ISAAC WOOD asked if any one present had met with a case that had been cured by letting off the fluid.

DR. CONANT had seen the operation performed a number of times, but without any benefit.

DR. GARDNER stated that the want of any definite knowledge as to the precise position of the fluid, whether upon the surface of the brain or within the ventricles was a great drawback to the success of the operation, and referred to a case operated upon in this city where the fluid was found entirely within the ventricles. The patient died from inflammation and the brain matter seemed as if stuck around on the inside of the skull. In the case presented, he did not deem the operation advisable, inasmuch as the child having arrived at such an age there was a strong probability that the bones of the skull would not collapse sufficiently when the water was withdrawn, and besides there was great danger from inflammation.

DR. F. H. HAMILTON operated in two cases, but without success. In one of these there was complete deficiency of one of the hemispheres of the brain.

DR. WATSON stated that he had operated but once for the disease, but with no benefit. He did not believe that any case of that disease had been cured by a resort to the operation.

Correspondence.

THE DRUG INSPECTORS AND THE PROFESSION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—As the time approaches for a change in the Federal Administration, and, consequently, in many of the offices held under that authority, it becomes an important duty and interest of the medical profession to take some thought and action upon the execution of that special law, which in 1848 was interposed by Congress for the protection of the public and the profession against the "importation of adulterated and spurious drugs and medicines." During the month, commencing Nov. 20, and ending Dec. 20, foreign drugs and chemicals, to the amount of half a million of dollars, passed through the New York Custom-House, all of which are used in either food or medicine, and about \$200,000 of this is used in medicine alone, including some \$80,000 worth of opium and cinchona barks, the remaining value being made up in some two hundred different articles. All these are, or should be, in accordance with the law, subjected to a critical examination—not all by analysis or assay, because that would be impossible for any five persons to accomplish, whilst one man only is supplied by the law, and that with neither office nor apparatus—but by the judicious application of a thorough knowledge of drugs and chemicals, of their mode of preparation and adulteration, and of the application of the proper tests of quality in equivocal and suspected cases. These facts are all that will be necessary to show the primary and vital importance of this law to the medical profession and the public. Yet it is liable to become almost a dead letter when the offices of inspector are held by incompetent or careless persons; and still more as the commercial interests of importers generally are in direct opposition to a faithful execution of the law. A few words upon each of these conclusions may serve to place the matter in its true light. First, as to the importance of the law. If opium, cinchona barks, rhubarb, ipecacuanha, copaiba, colchicum, camphor, eucalyptus, aloes, nux vomica, cannabis, and scammony, not one of which is or can be produced in this country, are indiscriminately admitted from

abroad, without regard to character or quality, the universal effect of competition and trade upon all open markets would supply these articles of all grades of value, and the lower grades in greatest abundance, because in trade price and profit both take precedence over quality. Hence a large proportion of the profession and the public must, from this cause, be supplied with inefficient, impure, and often deleterious drugs. As the profession of medicine and the public will probably continue to use these articles, and have not in themselves the means or knowledge necessary to ascertain their true value, short of their application to human life and human suffering, it becomes evident that this law is of primary and vital importance in the true sense of these expressions.

Second. A good law is efficient, even when not fully carried into execution, because its existence, as such, makes it possible to carry it into effect at any time and in any case. Thus those who are timidly disposed to do wrong, are held partially in check. But even such persons have a gradual tendency, little by little, to try its force, until its provisions are insidiously disregarded and annulled. Hence, although the simple existence of a law of this kind upon the statute-books does efficient service for a time, it soon becomes almost a dead letter; whilst through venality, incompetency, or carelessness, it is very liable to become far worse than useless, since it not only does not accomplish the object in either case, but must stand mischievously in the way of legitimate trade and commerce. That the natural effect of such a law is adverse to the exclusively pecuniary interests of importers, is evident from the facts, that, unlike most other classes of merchandise, the sensible properties of drugs and chemicals afford but little reliable information as to their intrinsic value; and that hence inferior articles may, with comparative ease, be either falsely or ignorantly represented to be of superior quality, and be sold at better profit. This effect of the present law is well illustrated in the canvass now actively going on in the drug market here for the office of drug inspector at this port. Several candidates are in the field, they or their friends all actively engaged in getting the signatures of druggists and importers to their recommendations and claims for the office; and the canvass is carried on in the usual spirit whereby each strives to forestall the other in private and political influence, and to bring to bear the various interests and sympathies that can be made available, while the character of each is freely discussed. One name has been mentioned in this canvass which at once excited an expression of active opposition from a partner in one of the best drug houses in this or any other city, upon the ground that, if the person so named should occupy the office of inspector, the standard of quality would be raised so high, and would be likely to be so applied, as to materially injure the drug market of this city, and force the commerce in importation of drugs into other cities and channels wherein the law might not be carried out. In other words, that the policy of New York is to place such a person in the office as would not be likely to interfere with importations, by carrying the law into effect—that is, to find the man who in the necessary oath prescribed by the law, will “solemnly, sincerely, and truly swear, diligently and faithfully to perform the duties of the office as prescribed by the act, to prevent the importation of adulterated and spurious drugs and medicines,” and who will yet be sure not to do what he solemnly swears he will do. One such fact, well established as this is, goes far to show that, if the medical and pharmaceutical professions, through want of due thought or action upon this subject, leave it in the hands into which it naturally falls, namely, the political and importing interests, to fill these offices in the districts in which they are established by this law, these professions may be very sure that their interests, and those of the public, will be destroyed, or so perverted as to render this important and excellent law not only useless but absolutely mischievous. And this naturally introduces the special object of this article, namely, to urge upon the medical organizations in the immediate neighborhood of the

six collectoral districts, where special examiners are authorized by this law, to take prompt and determined action in the matter. At this port it is especially incumbent upon the medical and pharmaceutical bodies to make an early and energetic movement, because probably two-thirds of all the imported drugs and medicines used in the United States are entered at this port. The new administration should be early and earnestly apprised, not only of the vital importance of this law, but also of the difficulties and responsibilities of its proper execution, and of the danger which attends the appointment of its officers through political or pecuniary interests and considerations. The law requires the Secretary of the Treasury to appoint “suitably qualified persons” to carry into effect its provisions, and, as in cases of appeal from the decision of the Examiner, it provides that the collector shall procure the services of some “competent analytical chemist, possessing the confidence of the medical profession, as well as of the colleges of medicine and pharmacy, if any such institutions exist in the State in which the collective district is situated,” to decide such questions of appeal, it is plain that the law does in itself recognise in the medical and pharmaceutical organization, a proper, legitimate, and necessary influence in its execution and application. And it is not probable that any administration would fail to be convinced of its importance, and, when so convinced by proper representations, would fail to exercise due care in the appointments, or give due and respectful weight and attention to the combined action of the medical and pharmaceutical institutions which are invoked by the law itself, whenever such institutions might offer their services and advice in filling the offices in their respective districts. This is precisely the course which will probably be adopted by all the medical and pharmaceutical organizations of this district with unanimity and decision. The Academy of Medicine and Kings County Medical Society have already discussed the subject, and fully recognising its importance, have appointed committees to confer with each other, and with the College of Pharmacy, with the State Medical Society, and all other societies that may be accessible. These committees have power, after due conference, to lay before the new administration the full appreciation by the bodies they represent, of the importance of the law, and the very great importance of having it faithfully executed at this port by a competent officer; and to offer to the appointing power, if such service be desired or permitted at their hands, the nomination of a proper person to fill the office. By this joint committee the whole medical and pharmaceutical, and, as far as these can represent it, the whole public interest of this district will be concentrated and represented, and will thus be rendered easily available to the appointing power, if that power should decide to accept their proffered suggestions and advice in the important local duty of selecting a proper person to fill the local office. By reserving their nomination until it is either asked for or admitted, the committee places itself and the bodies it represents, upon the high ground which is inaccessible to the indignity of a refusal to recognise its true spirit and intention in the matter; whilst in making the Government fully aware of the importance of the law, and the difficulties of getting it properly executed, it fulfils the whole duty of the medical and pharmaceutical professions, and imposes the whole moral responsibility upon the appointing power. At the same time, if it should be permitted to make a nomination, and if that nomination should be confirmed, the medical profession through it assumes a most important responsibility to the public at large. Such responsibility, however, legitimately belongs to the medical and pharmaceutical professions, because their true interests unite them with the public interests at large, and because from education, and from daily familiarity with the subject in all its various bearings, they are the most competent to form a correct judgment. Besides this, their local position gives them additional knowledge of the requirements of a local office in their midst, and of the character of any person

whom they would be willing to nominate and endorse for such an office.

In a close scrutiny of this law "to prevent the importation of adulterated and spurious drugs and medicines," its excellent objects and intentions are prominently apparent, and the general means by which it provides for the accomplishment of its objects are wise and good, and are as practical and sufficient as any ordinary foresight could make them, independent of experience in actual application. But in the course of some ten years' experience in application, certain points and portions of the law appear to need amendment and amplification to meet the necessities of a more faithful and thorough application; and such amendments and alterations have been proposed, and are still strongly advocated by the New York College of Pharmacy, and by persons most familiar with its operations, including Dr. Bailey, who for many years held the office of examiner at this port. Some of these amendments and amplifications in the order of the writer's estimate of their importance are as follow:—

First. The appointing power should be in the President, with a confirmation by the Senate; and the President should be legally authorized to seek for, or admit of, the advisory nomination of candidates for the office, by the medical and pharmaceutical organizations of the districts in which they are to officiate; or, what would be still better, the appointments should be made only after a thorough examination before the medical boards of examination of the army or navy. By such an examination the competency of candidates might be most thoroughly and effectually determined, and the true intentions of the law be best secured. These Boards meet annually, under the orders of their respective departments.

Second. The salaries offered by the law are not at all in proportion to the required integrity, knowledge, and skill. The highest salary, namely, that of sixteen hundred dollars per annum for the port of New York, is no adequate compensation for the faithful and capable examination of some six millions of dollars' worth of drugs and medicines, with the necessary records, reports, statistics, etc., which should belong to the office. Again: the thorough and faithful execution of the office where such vast quantities are presented, and so much at stake, is entirely beyond the possible capacity of any one person, no matter what his skill or knowledge may be. Therefore, the officer should be an inspector, rather than an "examiner," and should be allowed an assistant, to be appointed by his own selection and nomination, at a salary of one thousand dollars per annum. The inspector should receive at least three thousand dollars per annum at this port, and fifteen hundred dollars at the other ports, and should be provided with the proper office accommodations, and the necessary apparatus and reagents. The present law appears deficient upon all these points, since it supplies only a single man, and at a salary below that of a fair merchant's clerk, and fails to provide him with the means necessary to the performance of his duty, whilst he thus, unaided, is made responsible for the quality of some six millions of dollars per annum worth of articles of primary importance as food and medicine, and also of revenue.

The present law requires simply, that rejected articles shall, within six months, be re-shipped and landed out of the limits of the United States. In practice this is found to be an insufficient protection, because it does not prevent the condemned articles from being landed first without the limits of the United States, and being thence returned by coasting vessels into small ports of entry, where no examiner is stationed, and no suspicion excited. It is believed that condemned goods should always be re-shipped to the port whence they came, under proper bonds, or be destroyed, at the option of the owner or consignee. The special tests and standards adopted by the Treasury Department, in the "Regulations under the Revenue Laws," for the practical application of this law, need to be corrected, amended, and extended; for while the

standard for opium is a little too high, that for jalap, scammony, and others is too low, and some important articles are omitted altogether. There should be also some clause in the law or regulations, whereby, whenever the inspector deems it necessary to make assays, whether to determine the value by the standard, or for revenue purposes, the official assay might be furnished to the inspector free of expense. Many errors in invoices would be thus detected, and importers would be protected against ignorantly buying and selling articles upon false invoice valuation. Within a very few weeks the writer has met, in the common market, with three instances, in illustration of this deficiency in the law. Scammony was imported and sold as containing sixty-five per cent. of true resin of scammony, when, from very evident over-adulteration, it only contained forty-three per cent., and that in absolute disregard of this law, which renders all scammony below seventy per cent. illegal. Glacial Acetic Acid was imported as such, when it was not Glacial Acetic Acid at all; and Black Oxide of Manganese was imported as containing ninety-five per cent. of oxide, when it contained only sixty-five per cent. There are also large quantities of cinchona barks, so called, imported and sold, which do not contain a trace of the proper medicinal alkaloids. If the law be thus imperfectly executed, its wise provisions are of but little value, and it never can be properly executed short of a more just and liberal endowment. The law is wise and excellent in all its provisions, except those which are intended to secure its proper, judicious, and faithful application. But if not thus applied, its value is hardly equal to its present cost.

EDWARD R. SQUIBB, M.D.

BROOKLYN, N. Y., Jan. 18, 1861.

LOCAL APPLICATIONS IN DIPHTHERIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In an elaborate paper read before the Academy of Medicine, and partly published in your last number, Dr. Wynne states, that "Dr. Jacobi is not disposed to place much reliance on local applications, and confines them to an injection of a solution of chlorate of potassa or chlorate of soda, where the running from the nose is excessive, or offensive." Something like the preceding remark is contained in the Bulletin of the meetings of the Academy of Medicine. As I had found neither an occasion of correcting the minutes before they were published, nor of stating my views in full in that unexpected and extemporaneous discussion, I have since that discussion published my experience and opinions at length on this subject in the MEDICAL TIMES (Aug. 11th and 18th, 1860). But I am fearful that my views are even now misunderstood, for I notice that in extracts from and notices of this very article contained in a number of medical journals, they have been entirely misapprehended. As Dr. Wynne, in his able paper, speaks of the local treatment of diphtherite only, in connexion with my name, I take the liberty of referring him to the following extract from my paper in the AMERICAN MEDICAL TIMES of Aug. 18th, page 115:—"The majority of zymotic diseases require little or no medical treatment at all, especially those running their course in a distinctly typical manner. As to diphtheria, we have even made direct experiments, showing that mild cases will get well without treatment. But we think it more dangerous in diphtheria, than in other zymotic diseases, to abstain from treatment altogether, for three reasons:—Diphtheria is not a typical malady, and has a great tendency to return; it is more of an adynamic character than any other; and, finally, by the thick and extensive exudations in the pharynx and on the adjoining parts, it is apt to produce serious troubles, by mechanical encumbrances to deglutition and respiration. The local treatment consists of cauterization of the membranes and surrounding parts with the solid nitrate of silver, or with strong or mild solutions of the same salt in water (3 ss. j. 3j.); of gargles, consisting of solutions of (or applying in

substance) astringents, such as tannic acid, alum, sulphate of zinc, or claret wine; in gargling with, or applying, such medicinal agents as are known to have some effect on the constitution and tissue of the pseudo-membranes, as chloride of potassium, chlorates of potassa and soda, diluted or concentrated nitric or muriatic acids, liquor of sesquichloride of iron, etc. Astringents will prevent maceration, render the exudation dry and hard, and alter the consistency of the surrounding hyperæmic and oedematous tissue. It will thus prevent, sometimes, the extension of pseudo-membranes to the neighborhood of the parts already affected, and in some cases may accelerate the expulsion of the membrane as a whole. We have thus seen the best effects from tannic acid, either applied directly to the parts by means of a curved whalebone probang, or dissolved in water as a gargle (3 ss.-ii.: ʒi). Of the tinct. sesquichlor. iron we have seen no particular effect. Cauterizations with nitrate of silver we have found to be generally of very little use when applied to the pharynx. Its effect is superficial only; it will form a scurf, but will destroy nothing. Destruction of the parts cannot be effected except by forcing the caustic into and below the membrane; this can seldom be done in the pharynx of children, and for this reason cauterization is unavailing at this point, but will prove beneficial, we believe, by confining the process of exudation to its original locality. In cutaneous diphtheria cauterization may be exercised to its full extent, but as these cases are generally attended with extreme prostration, the general treatment will prove both more necessary and successful. If cauterization is to be resorted to, we generally use, and with good effect, more or less concentrated muriatic, or acetic, or nitro-muriatic acid. Where, however, cauterizations are made, great caution is necessary not to mistake afterwards the result of the caustic for pseudo-membrane. This remark is, particularly applicable where nitrate of silver has been used."

Truly yours,

A. JACOBI, M.D.

50 AMITY STREET, NEW YORK. Dec. 13, 1861.

DIPHThERIA IN MAINE.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR,—Diphtheria has not prevailed, in this section, as an epidemic, or as an endemic, independent of scarlatina, tonsillitis, or croup; yet I have frequently witnessed sporadic cases, of what is now denominated diphtheria, which were well marked by the early excretion of a thin pseudo-membranous pellicle, which soon became a thick fibrinous coat, and also attended with other characteristics of this disease. I have treated all such cases that have come under my care, successfully, with mild antiplogistics, generally premising an emetic of ipecacuanha; aided in the course of the disease, by scarifications of the inflamed, swelled, or congested parts, so as to produce free bleeding; and in a few cases it has been necessary to make deep incisions into the tonsils, or to excise them, carefully avoiding the deep and important arteries. I have never thought it expedient, or proper, to let blood from the arm, nor to cup or leech about the neck; but I am well satisfied that the abstraction of blood from the diseased membrane is beneficial in most cases.

A few years ago I was called into a town some twenty miles distant, to consult with Drs. L. and W., in a case of anomalous "sore-throat," of which several patients had died very suddenly. The messenger informed me, that when he left home, there were two patients very sick, and that they were both thought to be fast failing, as several others had, within a few weeks; one a man about thirty-five, in the village, and the other, a boy of about sixteen, a few miles beyond. On my arrival at the village I was told that the man was dead. I therefore immediately called on Dr. L., who resided in the village, and we both proceeded to see the sick boy, where we met Dr. W., who had visited

several of these patients with Dr. L. We found this patient in a comatose state, from which we could not arouse him. His face and neck were swelled and dark-colored, the veins turgid, the pulse slow and hard, and his breathing stertorous, evidently indicating compression of the brain; his hearing was obtuse, and to all appearance he seemed to be sinking. On examining the mouth and throat (which it was difficult to do) we found the whole mucous surface, as far as could be seen, highly inflamed, and very much swelled, and covered with what appeared to be a thick fibrinous coat; the throat was literally completely filled up. I proposed to scarify the diseased parts, which was immediately done, making deep incisions in the tonsils, from which the blood flowed freely, and he was soon relieved, in some measure, and he aroused a little from the coma. Having been requested, by the relatives and friends of the deceased man, in the village, to make an examination of his case, we left this young patient in the care of the nurses, and went back to the village and made the autopsy, as requested. Suffice it to say, for the present, (as I cannot, in this hasty letter, give the particulars) that death, in this case, seemed to be the result of congestion of the vessels of the mouth, fauces, pharynx, throat, and larynx; the mucous membrane of all these parts was very much thickened and covered with fibrinous tissue, closing the air passages. No suppuration nor gangrene could be discovered; he probably died from congestion (which extended also to the brain), and suffocation. This disease seems to be produced by inflammation of the blood, *sui generis*, which needs elucidation.

Having adjusted the parts of the cadaver which we had examined, we returned to see the young patient again; and to our surprise, we found him wide awake, conscious, and comparatively comfortable. He looked up at us, and said (though articulation was rather difficult), "You have cut my throat, now finish up the cure." He soon recovered, and the recovery was attributed to "bleeding him in the throat."

I am, dear sir, with esteem and respect, yours truly,

MOSES SWEAT, M.D.

NORTH PARSONSFIELD, Me., Jan. 1, 1861.

DOMESTIC CORRESPONDENCE.

PHILADELPHIA.

January 10, 1861.

THERE is nothing of greater interest to visitors in this city than medical life in its social aspect. This is best presented in the winter season when the entertainments of the clubs, and numerous parties given by prominent members of the profession, bring together weekly a varied intercourse of the fraternity. The extent to which this sociality has been carried is perhaps a characteristic of our fraternally-named city.

The oldest organization which has regularly given entertainments is the Wistar Association.

This body took its name from Dr. Wistar, who during many years of his life gave weekly re-unions at his residence, to which men of scientific character, whether in medical or other departments of science, were invited, and to which strangers of distinction were freely introduced. The Wistar Association was organized soon after the death of Dr. Wistar, and has continued for about fifty years. The Association is composed of gentlemen interested in scientific pursuits, and all are required to be members of the American Philosophical Society. I think that the Association numbers about thirty members, about one-half of whom are medical practitioners.

The medical clubs are composed entirely of medical men, and few others appear at the entertainments. They are limited in numbers, and memberships are selected with care, a unanimous vote to elect being required. The Monday Evening Club has been in existence for about forty years, and during this long period death has made but one place vacant at its board. Among the members are such

names, familiar to the world of medicine, as Drs. George B. Wood, Franklin Bache, Charles D. Meigs, R. La Roche, D. F. Condie, S. H. Dickson, and others whom I cannot recall.

The Tuesday Evening Club has been more recently organized, probably within the last ten years, or if previous to that period, did not contain its present members. The members include, I think, Drs. S. D. Gross, S. Littell, Wilson Jewell, D. H. Agnew, R. J. Lewis, Henry Hartshorne, and others.

The Thursday Evening Club has in its circle Drs. John Neill, J. B. Biddle, F. G. Smith, and Alfred Stillé.

There is also a circle connected with the Academy of Natural Sciences which has a social character, and there meet in it a number of medical gentlemen who are connected with the Biological Department of the Academy.

Although the numbers forming these organizations are very limited, the entertainments are frequently quite large, and their interest is much increased by the number of medical visitors who are always here during the lecture season, and who are introduced at the club meetings by the members. A frugal fare properly characterizes the tables at most of the meetings of the clubs.

The entertainments given by professors in their colleges to their medical classes are also attended by medical practitioners, but these parties have not the select or interesting medical character of the former style of assembly.

There are other social organizations, of a highly respectable character, but less known than those I have mentioned. Perhaps these medical coteries have as much influence on the medical status of the profession in the city as the medical societies, and as a harmonizing influence they are far in advance of the more directly scientific bodies.

The tendency of the latter is often towards discord, but doctors are not apt to disagree, in their proverbial manner, over a good supper—at least they seem to unite in the same method of treating it. Contrary to the usage in the societies, what is laid on the table is taken up and discussed harmoniously. Disunions and dismemberments are accomplished without danger of an intestine war. The practitioner for a while forgets real human suffering in the attractiveness of champagne. The surgeon exercises his skill with the carving knife instead of the catlin, while the obstetrician who is presumed to be practised in operating à la fourchette, introduces bivalves into himself instead of his patients.

Truly yours,

SANGRADO.

THE JAPANESE MOXA—DIPHTHRRA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—While the "United States Steam Frigate Powhatan" was in the waters of Japan, one of her officers obtained from a Japanese surgeon a package of what he designated "moxa," claiming for it the power of removing warts, corns, and other excrescences to which the skin and mucous membranes are liable.

The parcel was placed in my hands in the month of September last, since which I have availed myself of every opportunity to test its virtue.

It consists of what seems to be the pulp or pith of an annual plant or shrub, cut into round strips, nicely rolled in Japonica rice paper, and then divided into sections about two lines in length. One of these sections placed upon a wart and then ignited, will most effectually destroy the wart; and, strange to say, it is almost a painless operation, the moxa taking fire almost instantaneously, like gunpowder, continuing to burn about thirty seconds, and leaving the part directly beneath thoroughly charred, and, if a wart, eradicated.

In this part of the country, where the actual cautery will not be tolerated, this moxa is invaluable, being nearly as efficacious as the hot iron itself, without having the same horrifying effect upon the patient.

I have used it in almost every case that has come under my observation, where actual cautery was indicated. Chancres, venereal warts, condylomata, indolent ulcers, after operations for in-growing nails, and in many cases where counter-irritation was desirable, with a success, I think, more than equal to what I have observed in the hospitals of Europe and in this country, in similar cases subjected to the actual cautery. I have made repeated trials with the pith of many of our indigenous plants, with the German tinder, and other porous vegetable substances, but in no case with as satisfactory results as with the Japanese article.

There is a prevailing panic throughout our city in relation to that frightful scourge, diphtheria, which has prevailed extensively during the past four months. There seems to be no doubt that it is communicable both by inoculation and contagion; the first is proved by the fact that the wife of one of our most respectable citizens, while fulfilling that noblest duty of preparing for the grave the child of a poor neighbor (dead from diphtheria), unfortunately allowed one of her fingers, upon which was a fresh wound, to come in contact with some of the fluids of the body, which soon produced the effects usually following dissecting wounds, superadded to which, were all the symptoms of diphtheria, under which she sank. The fact of its being in a limited degree contagious, is, I believe, generally admitted. That children are more susceptible to it than adults, is also true. The mother and four children in one family in this city were carried off, one after another, by this disease. A relative of the family, from a town eleven miles distant, was sent for, and assisted in nursing the children. After their death she went home; ten days after, two of her own children were attacked with the same disease, and two days after that the mother was taken down; the mother and one of the children died. I am informed from a reliable source, that these were the first cases in the town.

In the treatment, we notice that when the patient is seen early after the disease is manifested, and treated actively with counter-irritants, externally, tonics, stimulants, chlorine gargles, internally, the consequences are not so fatal; but, in cases where the disease has been trifled with by delay, quackery, or by inefficient treatment, death is the inevitable result.

J. B. GREELEY, M.D.

NASHUA, N. H., Jan. 1, 1861.

FOREIGN CORRESPONDENCE.

Letter from DAVID P. SMITH, M.D.

EDINBURGH.

November 29, 1860.

PROF. SIMPSON remarked that auscultation of the foetal heart was a great help in practice, that it rendered certain many otherwise uncertain diagnoses, in fact, that it was wonderful how obstetricians had ever got on without a knowledge of it. He considers auscultation of the foetal much easier than auscultation of the adult heart. Many precautions were mentioned as proper to be observed in order to insure accuracy, such as stopping any clock, divesting yourself of your watch, etc., etc. The Professor said that an eminent obstetrician once pronounced a patient pregnant, who was not so, from mistaking the sound of his own heart, he being feverish, and having a pulse of 120, for the tic-tac of the foetal heart.

Dec. 10.—I assisted Mr. Edwards to-day in the removal of an enchondroma, the size of the doubled fist, from the popliteal space of a woman. It was attached by a pedicle of one inch in diameter, to the fibula, within two inches of its head.

Dec. 11.—Mr Edwards to-day excised the ankle-joint of a young girl. A judicious enlargement of several fistulous openings upon the outer aspect of the joint, gave free access to the articular cavity. Both malleoli, part of the astraga-

lus, and a small portion of the os calcis were removed, allowing the limb to shorten about one inch. The same surgeon recently removed a part of the lower jaw, for medullary epulis, extending from the angle nearly to the symphysis menti. Of course, in all probability, this tumor will return, but the disgusting nature of the disease seemed a sufficient warrant to attempt the amelioration of the patient's condition, if but for a short time. The young infant, upon whom, in a former letter, I mentioned the performance of tracheotomy for croup, is now entirely well, and will leave the Infirmary in a few days. In connexion with this subject, I may mention that diphtheria has occurred here recently in quite a number of cases, in connexion with variola. One patient, an adult, upon whom Mr. Edwards performed tracheotomy when *in articulo mortis*, recovered after expectorating large quantities of the false membrane. At a post-obit examination of an infant who succumbed to variola I observed patches of false membrane scattered over the soft palate and tonsils. A case of ovarian dropsy under Prof. Bennett's care in the Infirmary, has been reduced in girth from forty-seven to forty inches, by the employment of steady continuous pressure. A shield, or abdominal cuirass, of pasteboard, soaked in water, was firmly bound on by bandages, which were tightened or re-applied as occasion required. I recently witnessed the post-mortem of a woman, where one of the ovaries was found to have been transformed into a very large cancerous growth interspersed with small cysts, a cystic carcinoma. Some time since Mr. Syme performed a bold operation upon a man, with apparently varicose aneurism, involving nearly all of one side of the neck. I have mentioned the case in one of my letters, and said that Prof. Syme declined to do anything for the man when he first applied to him. He afterwards returned, and declared his readiness and desire to submit to anything that promised relief. Under these circumstances Prof. S. made an incision by which he endeavored to reach the supposed point of communication between the artery and vein. The gush of blood was fearful, and, although the common carotid had been cut down upon and was thoroughly compressed, Prof. S. was obliged to desist, and tie up the opening he had made into the sac. Several hours after this, hæmorrhage recurred, and then a cord was passed deeply under the tumor and tightly tied. This was done about a fortnight since, with the effect of causing great diminution in the size of the tumor. What the final result will be it is now impossible to say, inasmuch as the nature of the tumor is not very clear.

Medical News.

PERSONAL.

ALEXANDER N. GUNN, M.D., Health Officer of the Port of New York, has been re-appointed to that office by the Governor and Senate.—Braithwaite's Retrospect for January, contains a highly complimentary notice of the new midwifery forceps of Dr. SAMUEL T. KNIGHT, of Baltimore. The same publication makes special allusion to the case of death and almost entire absorption of a foetus, reported by Dr. E. J. FOUNTAIN, of Davenport, Iowa.—The *Medico-Chirurgical Review* gives Dr. ELWELL's work on Malpractice a flattering review.—MR. HENRY M. LYMAN, of the graduating class of the College of Physicians and Surgeons, has been chosen valedictorian.

The small-pox exists to a fearful extent on board the corvette Cumberland, of the home fleet, although she has been only a short time in service. Communication with the ship has been prohibited for the present by the flag officer. She is at Vera Cruz.

NEW YORK PATHOLOGICAL SOCIETY.—At the last meeting, January 23d, the following specimens were presented:

—Head, cervix, and two trochanters of femur, exsected for ankylosis, by Dr. G. Buck; Gangrene of the uterus, and arsenical inflammation of stomach, by Dr. Fennell; Ankylosis of middle finger, by Dr. Thompson; Cancer of stomach, by Dr. H. N. Fisher; Fibroid tumor of the ovaries, uterus, and stomach, by Dr. Krackowizer; and Ovarian cysts, and Abscess of liver, by Dr. Loomis.

TO CORRESPONDENTS.

Diphtheria in Iowa.—In this locality we have had but very little opportunity of studying it from actual observation. It has not yet appeared as an epidemic at all, and only a few sporadic and not well-marked cases have been seen. E. J. F.

DAVENPORT, Jan. 2, 1861.

Surgery on the Panama Railroad.—Our hospital is small, still we have something in the way of operative surgery. Since I came over here, I have had to amputate two thighs, one leg, one fore-arm, one finger; reduce two dislocations of the shoulder; besides the cuts and fractures. Railroad cars, you know, have a way of making surgical cases, more especially when the men who work about them are as careless as these negroes. W. T. WHITE.

ASPINWALL, Dec. 15, 1860.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK.

From the 14th day of January, 1861, to the 21st day of January, 1861.

Deaths.—Men, 81; women, 91; boys, 137; girls, 105—total, 414. Adults, 172; children, 242; males, 218; females, 196; colored, 9. Infants under two years of age, 164. Among the causes of death we notice:—Infantile convulsions, 29; croup, 12; diphtheria, 19; scarlet fever, 24; typhus and typhoid fevers, 6; consumption, 68; small-pox, 15; dropsy of head, 19; infantile marasmus, 20; inflammation of brain, 9; of lungs, 30; bronchitis, 17; congestion of brain, 6; of lungs, 5; erysipelas, 2; whooping cough, 2; measles, 5; rheumatism, 1.

Jan. 1861.	Barometer.		Temperature.			Difference of dry and wet bulb. Therm.		Wind.	Mean amount of cloud.	Rain.
	Mean height.	Daily range.	Mean.	Min.	Max.	Mean.	Max.			
	In.	In.	°	°	°	°	°		0 to 10	In.
13th	30.42	.40	4	—1	9	1.5	2	N.W.	0	
14th	30.35	.45	17	6	29	2	3	N.E.	10	1.25
15th	29.80	.30	33.5	30	37	1	1.5	N.E.	10	1.25
16th	29.50	.30	34	31	37	.05	1	N.E.	10	1.25
17th	29.94	.58	38	30	45	4	7	S.W.	.01	
18th	29.80	.60	34	31	37	1	2	N.E.	10	
19th	29.67	.20	38	31	45	4	6	S.W.	.88	.3

REMARKS.—Wind mostly light during the week; 14th, snow, hail, and rain P.M.; 17th, light fog A.M.; 18th, snow and rain P.M.; 19th, fog A.M., cloudy P.M.

MEDICAL DIARY OF THE WEEK.

Monday, Jan. 23.	{ NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Thomas, half-past 1 P.M. EYE INFIRMARY, Diseases of Eye, 12 M.
Tuesday, Jan. 29.	{ NEW YORK HOSPITAL, Dr. Peters, half-past 1 P.M. EYE INFIRMARY, Diseases of Ear, 12 M. OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M. BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
Wednesday, Jan. 30.	{ EYE INFIRMARY, Operations, 12 M. NEW YORK HOSPITAL, Dr. Cook, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Sayre, half-past 1 P.M.
Thursday, Jan. 31.	{ OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M. NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Elliot, half-past 1 P.M.
Friday, Feb. 1.	{ NEW YORK HOSPITAL, Dr. Peters, half-past 1 P.M. BELLEVUE HOSPITAL, Dr. Church half-past 1 P.M. EYE INFIRMARY, Diseases of Eye, 12 M.
Saturday, Feb. 2.	{ BELLEVUE HOSP., Dr. Wood, half-past 1 P.M. OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M. NEW YORK HOSPITAL, Dr. Cook, half-past 1 P.M. EMIGRANTS' HOSP., WARD'S ISLAND, Dr. Carnochan, 3 P.M. EYE INFIRMARY, Diseases of Ear, 12 M.

SPECIAL NOTICES.

THE NEW YORK COUNTY MEDICAL SOCIETY will hold a *Stated Meeting for the discussion of scientific subjects, on TUESDAY, the 29th inst., at 7½ o'clock P. M., in the Hall of the College of Physicians and Surgeons, corner of Twenty-third street and Fourth Avenue. A Paper on the Etiology and Pathology of TETANUS will be read by WM. H. THOMSON, M.D. Members of the Society and the profession generally are invited to be present.*

BELLEVUE HOSPITAL.—On Monday, January 28th, Dr. WM. H. CHURCH will deliver a lecture on the Laryngoscope and its uses.

Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE I.

TO-DAY, gentlemen, we shall begin the study of the cranial nerves: and I will mention in the first place that in studying these nerves, we shall leave out of consideration three which are usually included in the enumeration. We shall say nothing at present of the three nerves of special sense, the olfactory, the optic, and the auditory, for reasons into which I shall enter more fully hereafter. We shall study the cranial nerves as conductors, in the first place of sensation from without inwards, and secondly of the stimulus of motion from within outwards. The cranial nerves, then, viewed in this light, are only nine, instead of twelve. Enumerating from before backwards, we meet first with what is called the third pair, the motor oculi communis, or, as it is more frequently called, the oculo-motorius; the fourth pair, or *patheticus*; the fifth pair, or *trigeminus*; the sixth pair, or *abducens*; the seventh, or *facial*; the ninth, or *glosso-pharyngeal*; the tenth, or *pneumo-gastric*; the eleventh, or *spinal accessory*; and the twelfth, or *hypoglossal*. I have thus enumerated nine pairs, and left out the three nerves of special sense.

Now in commencing the study of these nerves we shall find that, like the spinal nerves, they are composed of filaments which are either motor or sensitive in their nature, which either convey sensation, as I have said, from without inwards to the nervous centres, or convey the stimulus to motion from within outwards towards the contractile muscles. We shall find that they consist sometimes exclusively of motor fibres, and sometimes wholly of sensitive filaments; while in other instances they may be made up of these two different kinds of filaments mingled together in such a way and in such relative proportions that the nerve as a whole possesses mixed properties.

To-day I shall call your attention to those cranial nerves which are distributed to the muscles within the orbit: the third pair or oculo-motorius, the fourth pair or *patheticus*, and the sixth pair or *abducens*.

Let us see, in the first place, what are the anatomy and distribution of these nerves; secondly, what is their relation to each other; and thirdly, what are the peculiar functions which they perform. First, the oculo-motorius. This nerve originates from the inner side of the crus cerebri, at the point which I now indicate with the end of the instrument, about half way between its emergence from the anterior edge of the pons varolii; and the point where it passes underneath the lateral lobe of the cerebrum. It passes from without inwards and from behind forwards; then, leaving the cavity of the cranium, enters the cavity of the orbit by the foramen lacerum anterius or the sphenoidal fissure. Having arrived in the cavity of the orbit, it breaks up into two or three different branches, these into final ramifications, and thus the nerve as a whole is distributed to the following muscles;—levator palpebræ superioris, superior rectus, internal and inferior rectus, and inferior oblique. The nerve, as you will see, is justly entitled to the name given it.

Such, then, are the origin and distribution of the third pair of cranial nerves; now let us pass on to the examination of the fourth pair, or *patheticus*. It originates in a much deeper situation than the third pair, and in order to view it properly, we are obliged to lift the posterior lobes of the

cerebrum from the superior surface of the cerebellum, when we find the nerve lying in the fissure between the cerebellum and the tubercula quadrigemina. This nerve is exceedingly small, and very slender in comparison with the one we have just had under consideration, for the very good reason that it has a minor function to perform, that is to say it is distributed only to a single muscle, viz. sup. oblique.

The sixth pair, or *abducens*, originates still further back, arising from the anterior column of the medulla oblongata, at the point which I now indicate; it runs from behind forward, and, like the nerves just described, passes through the sphenoidal fissure into the orbit, and like the *patheticus* is distributed to but one muscle, viz. the external rectus. In this fresh brain you will see indicated the origin of these different nerves, or rather the origin of some, and the course of all, as they pass from the surface of the brain forward to the sphenoidal fissure. You will see that I have here the fresh brain of a sheep, laid upon its superior surface, so as to show its base. Emerging from the inner edges, as I mentioned, of the crura cerebri, you have here exposed the track of the third pair, the oculo-motorius; then you will see, a little further back, and curling round the crus cerebri from behind, the small and slender *patheticus*; again, on the anterior surface of the medulla oblongata, originating from just behind the pons varolii, two other nerves which run forward in a similar direction. These are the *abducens*.

In this second preparation you have the origin of the fourth pair more distinctly marked. In the last specimen shown, you could only see the nerve curling around the crus cerebri, but here you see exposed, first the tubercula quadrigemina, and secondly, immediately behind them, a thin sheet of nervous matter which is the valve of Vieussens; and originating from this by two or three filaments, the fourth nerve. Now at its origin the fourth pair very frequently shows a transverse band of white fibres, or a commissural bundle, extending from one side to the other; an appearance which is not so visible in the sheep's brain as in that of the dog.

Here is the brain of a dog, which shows this in a remarkably distinct manner; you see the white bundles just at the point where they emerge from the valve of Vieussens.

In this third preparation you have a dissection of these nerves, showing their course in the interior of the cranium, the brain having been removed. It shows the third, fourth, and sixth pairs, as they pass through the foramen lacerum anterius and enter the cavity of the orbit. On the inside of the fourth pair you will see the oculo-motorius, which passes in very much the same direction through the cavity of the orbit, to supply the muscles already enumerated. In this preparation of the head of a sheep, the levator palpebræ superioris muscle is comparatively small, and you will see that the size of the nerve which supplies it is proportionally small, for the reason already explained. Finally, in this last preparation, you have a dissection of the sixth pair on one side, as it leaves its origin at the base of the brain and runs forward (the dura mater which naturally covers it being here removed) to enter the cavity of the orbit by the sphenoidal fissure. These dissections, then, will give in a very general way the origin, course, and distribution of these three nerves. Now, I have spoken of these three nerves together, and shall continue to speak of them together, for various reasons. They are naturally associated with each other so far as their origin is concerned. In the description I have already given of these nerves, they would seem to originate from different parts of the brain, but in reality they are connected with each other; they all originate from continuations of those longitudinal bundles of fibres coming up from the anterior part of the spinal cord, which constitute the motor tract. Take, for example, the third pair. They originate, as I have already stated, from the inner side of the crus cerebri, which, in its turn, is nothing more than a bundle of motor filaments. So that, in originating from the crura cerebri, the third pair in reality are continuations of these motor fibres. The fourth

pair, which takes its apparent origin from the valve of Vieussens, can be traced backwards in such a manner as to show that it originates in reality from the continuations of the motor columns of the cord, forming the *processus cerebello ad testes*, or the "inter-cerebral commissure." Thirdly, the sixth pair originates directly from the anterior pyramids of the medulla oblongata, which form the upper extremities of the anterior columns of the spinal cord.

When examined in detail, therefore, we find that these three nerves have an origin which may be regarded as physiologically the same, although in ordinary parlance they might be considered as different. Their distribution is also the same; for I have only to remind you that these three nerves, originating in similar portions of the brain, pass out of the cranial cavity by one foramen, that is the sphenoidal fissure, and, having entered the cavity of the orbit, are all distributed to muscles having a common object, that is the movements of the eyeball, and the protection of its anterior surface from too great an influx of light. It is very evident that these nerves are associated in their distribution, so far as their physiological character is considered. We may consequently regard them very properly as one nerve, with its different branches supplying different muscles belonging to the same set. We are not, however, to consider each nerve by itself, as distinct, simply because it passes out of the cranial cavity by a distinct foramen; neither, on the other hand, should we regard two nerves as identical, merely because they pass out by the same foramen. The auditory and facial nerves both leave the cranial cavity together by the meatus auditorius internus; but they are entirely different in their distribution and in their functions.

You will recollect, if you please, gentlemen, the manner in which the anterior and posterior roots of the spinal nervous trunks are situated, and that in them reside two important qualities, viz. excitability and sensibility; excitability, by which the nerve, when irritated, causes a muscular contraction; and sensibility, or that property by which the nerve, when irritated, produces a painful sensation.

Now let us examine these three nerves in the same way as we have examined the spinal nerves. Take first the third pair or oculo-motorius nerves. If they be irritated, the consequence of that irritation is a contraction in the muscles of the eyeball. Then if we divide the nerve, there follows, as a consequence, paralysis of all the muscles to which it is distributed. The same thing may be said of the two other nerves which we have examined. Irritate the fourth pair, and you have a spasmodic contraction of the superior oblique muscle; divide it, and you have paralysis of the same muscle. Irritate the sixth pair, and you have a spasmodic contraction of the external rectus; divide or destroy it, and you have a paralysis of the same muscle. All these effects are produced without the intervention of any painful sensation. The result of these examinations has shown, therefore, that these three nerves are exclusively motor in their character.

Now let us see what is the effect upon the general condition of the eye-ball when these nerves are injured by experiment, or destroyed by disease.

Suppose, in the first place, that the oculo-motorius nerve is injured or destroyed, during any part of its course, by inflammation, by pressure from an intra-cranial or intra-orbital tumor, or by any similar morbid affection. The consequence would be paralysis of the muscles which it supplies with filaments. The first and most palpable effect of such a paralysis is a constant drooping of the upper eyelid, and an incapacity to open the eye widely. In opening and closing the eye the inferior lid is nearly passive. The upper lid is raised by the action of the levator palpebræ superioris, as you would draw up a curtain by pulling the strings. The consequence is, that paralysis of the oculo-motorius is followed by paralysis of the levator palpebræ superioris, which in its turn results in the partial closure of the eye. You will notice, gentlemen, that the eye is not *completely* closed after para-

lysis of the oculo-motorius, because the superior eyelid only falls downwards by its own weight, and there is still left a narrow opening between the two eyelids. When the eyelids are to be forcibly closed, we call into play an entirely different muscle, viz. the orbicularis oculi. Hence the closure of the eye which results from paralysis of the levator palpebræ superioris, is partial in its nature, and not complete. The consequence of this paralysis is a very peculiar deformity of the affected side of the face. Naturally the eyes on both sides are equally open. They are open to such an extent that we generally see a little more than half the cornea, and the whole or nearly the whole of the pupil. Now when the levator palpebræ superioris is paralysed, the upper eyelid drops down over the eye like a curtain, instead of being freely lifted, as it should be.

The next effect of paralysis of the oculo-motorius is an external strabismus. For the three recti muscles of the eyeball, which are animated by this nerve, being paralysed, and the external rectus, which is supplied by the abducens, not being antagonized, the eyeball is rotated upon its vertical axis, and turned outwards. Then we have an external strabismus, simultaneously with paralysis of the upper eyelid. The paralysis of the upper eyelid is called by a distinct name, *Ptoxis*. When ptoxis comes on without any evident cause, a symptom in itself apparently so insignificant as this may have a very important bearing; it may originate from some unimportant morbid process going on in the cavity of the orbit, some tumor or some inflammation involving the trunk of the oculo-motorius or one of its branches; but it may also originate from disease within the cranial cavity.

Secondly, with regard to injury or paralysis of the patheticus or fourth pair; we need say very little about this nerve, since it is distributed to but one muscle, and consequently only a very limited paralysis is the result of its injury.

The sixth pair, in this respect, is somewhat different. The external rectus muscle, to which this nerve is distributed, is of course paralysed when the nervous supply is cut off, and there is in consequence internal strabismus; precisely the opposite condition from that produced by paralysis of the oculo-motorius. We have therefore two different kinds of strabismus, external and internal, resulting from the paralysis of the third and sixth pair of nerves respectively. Now we know that different kinds of strabismus occur with different degrees of frequency. The most common form is internal strabismus, and the next most frequent, the external. Superior and inferior strabismus are exceedingly rare. I have, however, seen a case of superior strabismus, in which the eye of one side looked upwards. You will at once understand the reason of this difference by examining the arrangement of the nerves which supply the muscle in question. For it is evident that any disease affecting the oculo-motorius nerve would be much more likely to paralyse all its fibres together, and so produce external strabismus, than to be confined to those filaments supplying the superior or the inferior rectus, and so produce inferior or superior strabismus; while a paralysis of the external rectus muscle, and consequently internal strabismus, is more probable than either, since this muscle is supplied by a single nerve which may easily be affected independently of the rest.

There is one other point in regard to the phenomena shown sometimes in strabismus which is exceedingly interesting in this connexion. All these muscles, you will observe, have a very important influence upon the sense of sight, and form accordingly a part of the visual apparatus. In studying the operation of the organs of special sense we shall find that they consist, in the first place, of a nerve endowed with special sensibility, and, in the second place, of various accessories intended to assist this nerve in the performance of its function and to render its action more perfect and complete. In the case of the eye, the retina is a nervous expansion capable of appreciating the impressions of light; but this retina, by itself, would make a very imperfect eye; and in order to make it act perfectly,

we have the different transparent media through which the light is made to pass before it reaches the more sensitive portion of the apparatus. But not only have we these different transparent and refracting media, but we also find that the eyeball is provided with different muscles, by which it is made capable of being turned in different directions, so as to catch the rays of light from whatever quarter they may come. If this power were destroyed, although the retina might retain all its properties, the useful operation of the eye would be practically suspended. Accordingly we find that these muscles are very important as aids to vision, and whenever one of them is paralysed, this paralysis must act indirectly to interfere with the perfect performance of the visual function. We find that when there is internal strabismus which is not very excessive, surgeons are in the habit of dividing the internal rectus muscle, in order to restore the parallelism of the axes of the two eyes. Now, it is not very certain what is the immediate cause of strabismus. Some have supposed it to be due to an imperfect development of the muscles themselves, while others have regarded it as a consequence of some nervous affection taking place during foetal life; but, whichever of these conditions may be the original cause of the difficulty, the surgeon, in order to remedy the defect, divides the shortened muscle. You have undoubtedly noticed that in these cases, the instant that the shortened muscle is divided, the eye becomes straight. You have undoubtedly also wondered why it is that the eye after this operation does not turn outwards; for the external rectus muscle, being relieved of antagonism, would naturally, we should expect, act so as to produce the opposite state of things to that which had previously existed. The reason, however, why this does not happen, is that the position of the eyeball is not regulated altogether by its muscles, but also by the general elasticity of the eyeball itself, and of the surrounding tissues.

There are certain other points, in regard to the direction of the eyes, which are also exceedingly important. I have said in a general way that the parallelism of the two eyes is retained by the action of the muscles, combined with the elasticity of the tissues about the eyeball. It is important, however, to remember that the axes of the two eyes are not in reality precisely parallel. In some animals, we know that this difference is very marked. Take for example the fish, the axes of whose eyes are in exactly opposite directions. The eyes of the dog and horse have their axes also diverging. In the human subject we are in the habit of regarding the axes as parallel and directed straight forward, but in reality they are convergent. For on looking at any object at a distance of some feet, it is necessary that both eyes should be brought to bear upon it at once, and consequently the angle of convergence of the axes must be such as to correspond with the distance of the object inspected. The consequence of this is that the muscles moving the eyeball must act in a very peculiar harmony with each other. They must act *in harmony* with each other, but not *alike*; the two internal recti must draw the eyes together with a certain degree of force when we are looking at any object at a distance of a foot, and in a proportionately less degree at a distance of ten feet. It is only necessary to indicate this upon the blackboard in order to make it perfectly understood. You see that the angle of convergence of the visual axes is much greater for a near object than for a distant one. Now another consequence of the fact that the axes of the eyes in the human subject always converge is, that the subject viewed never presents the same appearance to both eyes. For example, if you look at this skull placed directly in front of the two eyes, it will not appear to both in the same position; but to the left eye it will appear to be turned a little to the right, and to the right eye a little to the left. Therefore each eye sees a different picture of the same object. But how is it, you may ask, that in that case we do not see two different skulls? The reason is that these two images are fused together and united by the two eyes, so as to create but a

single impression on the sensorium. Now this union or combination of two different pictures of the same object produces in us the perception or impression of solidity and projection; for you see at once that it is only a solid and projecting body which can thus present two different figures to the two eyes. If we look at a flat object, it necessarily appears the same to each eye. For example, this picture of a brain, no matter how well drawn, cannot give the impression of solidity, since it makes the same impression on both eyes. If, however, you view the under surface of the brain itself, you will see a part of its projections with one eye, and a part with the other. The consequence of this is that we can never get the impression of solidity from one picture, however well finished, because it will always look the same to both eyes; and notwithstanding the lights and shadows may be all perfectly natural, we shall feel that both eyes see precisely the same thing, and that the object is *not* a solid body, although it may represent one. But these appearances may be represented by two distinct pictures; this is done in the instrument that is now known as the stereoscope. Here we have two pictures so placed in a box that one can be seen only with the right eye, and the other by the left eye, and, as you are all aware, the effect upon the mind is precisely that given by a solid projecting body. A great improvement has been made with reference to this instrument since the use of photographs; for instead of drawing the object, as formerly, first in one position and then in the other, all that is necessary is to have two photographic camera to operate upon any single object, and two images are thus made at the same instant.

There is only one other peculiarity with regard to the muscles moving the eyeball to which I will allude at present, viz. that the corresponding muscles on the two sides do not always act simultaneously. For in turning the visual axes towards the left, in order that the two eyeballs may act together, the external rectus muscle must contract upon the left side, and the internal rectus upon the right; thus by the operation of different muscles the two eyeballs are turned in the same direction. This, however, is only one instance among many of the peculiar relation which exists between the more essential parts belonging to the organs of special sense and the auxiliary organs upon which they depend for the application and perfection of their function. At the next lecture we shall pass on to the consideration of the great sensitive nerve of the face, viz. the fifth pair.

CLINICAL LECTURES,

DELIVERED IN THE N. O. CHARITY HOSPITAL

BY AUSTIN FLINT, M.D.,

PROF. OF CLINICAL MEDICINE AND MEDICAL PATHOLOGY, IN THE N. O. SCHOOL OF MEDICINE.

LECTURE IV.

ON FUNCTIONAL APHONIA—THE PATHOLOGICAL RELATIONS OF CHRONIC LARYNGITIS.

GENTLEMEN: The subjects of my lecture this morning are certain points relating to the study of pulmonary tuberculosis. I need not say how important is this study. The extent to which tuberculosis of the lungs prevails in all parts of our country, and the share in mortality belonging to this disease, are obvious considerations, investing it with great importance for the medical student and practitioner. In my clinical lectures here, together with my didactic course at the college, I shall aim to take up all the important points pertaining to the study of this disease. Circumstances render it convenient to-day to speak of the pathological relations to this disease of chronic laryngitis, and of certain physical signs denoting pulmonary cavities.

Here are two patients who are affected with chronic laryngitis. I shall address to each of them a few questions, in order that you may perceive their condition as regards the voice. Both, as you perceive, are able to speak in a

whisper only. They are affected with aphonia, or loss of voice. Let me direct your attention to certain characters pertaining to the whispering sound which they produce. You observe that when they attempt to speak, they produce a husky, or stridulous sound, and they seem to make a painful effort; they strive to bring out the voice, and fail to do so, except now and then, after a strong effort, they succeed in uttering a sound above a whisper, and then the sound is notably hoarse. Now, these characters always denote chronic laryngitis. We have only to hear the patients attempt to speak to make this diagnosis.

But chronic laryngitis is not always the morbid condition giving rise to aphonia. The voice may be lost from paralysis of the laryngeal muscles or of the spinal accessory nerve, which the researches of Claude Bernard have shown to be the nerve of phonation. The aphonia in the latter case is functional. I wish to point out to you certain circumstances distinctive of this latter kind of aphonia. I shall probably not be able to illustrate this affection, for I have only charge of male wards, and the affection, in the vast majority of cases, occurs in females. It may be that the wards of my colleague, Prof. Brickell, will furnish an example during the winter. In private practice you will occasionally meet with a female patient who has lost her voice. The first question, then, to determine is, whether the aphonia be due to paralysis or to chronic laryngitis. The history and associated symptoms will serve to settle this question; but you can generally settle it at once, when you request the patient to attempt to speak. If it be functional aphonia, the patient converses in a soft, low whisper. The whisper is not husky or stridulous. There is not a strong, painful effort to speak in a loud voice, as in chronic laryngitis. Perhaps the patient can at times succeed in recovering the voice; if so, the voice may be found to be natural in quality so long as it is retained. Patients with functional aphonia generally manifest more or less of the varied phenomena included under the name of hysteria. You may say to such patients that they will recover the voice sooner or later. The recovery is certain, but you cannot say how soon it will take place. The recovery is apt to take place suddenly and unexpectedly, and then the particular remedy which is at that time in use gets the credit of effecting a remarkable cure.

Aphonia from chronic laryngitis not only depends on a different local condition, but it has pathological relations quite different from those of functional aphonia. I have introduced these patients merely to show the characters to which I have called your attention, and I will now dismiss them from the amphitheatre. The patients having retired, let us now inquire what are the pathological relations of chronic laryngitis. With very few exceptions, it is either syphilitic or tuberculous. Laryngitis as a result of the syphilitic poison, according to my experience, is rare. As I have met with the affection, it has seemed, in connexion with tuberculosis. Whether the local affection be tuberculous, that is, dependent on the deposit of tuberculous matter within the larynx, I cannot say from my own observations. I suppose it to be so. At all events, clinical observation shows that it is associated with tuberculosis of the lungs.

The existence of chronic laryngitis is, in itself, very strong evidence of the existence of pulmonary tuberculosis. I wish to impress this fact. When a patient comes to you, speaking in a husky whisper, or with a hoarse, broken voice, and you find that this has been his condition for some time, you may expect pretty confidently that an examination of the chest will disclose the physical signs of a deposit of tubercle. You may be almost sure of it, if the patient has lost considerably in weight, and has never had syphilis. The occurrence of hæmoptysis also gives great positiveness to this expectation. In one of the cases just introduced, the previous history points strongly to tubercle. This patient had measles in January last, and has not been free from cough since. Here, gentlemen, let me call your attention to an important fact which clinical observation

has established. Measles occurring in a person predisposed to phthisis, is apt to be followed by the latter disease. A patient after measles, who may be regarded as in danger of phthisis from hereditary influence, or other causes, claims our especial care, in order to endeavor to prevent the deposit of tubercle.

In this case the symptoms of the laryngeal affection appeared in March last. The voice at first became hoarse, and was gradually extinguished. The patient has had several attacks of hæmoptysis, and has lost about thirty pounds in weight. On examining the chest I found unequivocal evidence of a moderate amount of tuberculous deposit.

In the other case the laryngitis has only been of about three weeks' standing. The patient has had syphilis, but this was nine years ago. An examination of the chest does not give positive signs of tuberculosis, but certain signs render the existence of a small deposit probable. I am inclined to think that this patient is in the incipient period of tuberculosis; if so, provided he remain in the hospital, and the progress of the deposit be not arrested, the physical evidence of the latter will become, by and by, more positive.

Let me say, gentlemen, that you must not expect to effect a cure in cases of tuberculous laryngitis. I have never known the cure to be complete, but I have sometimes observed considerable improvement from local and general measures of treatment.

Before I leave this subject, I wish to impress another fact which clinical experience teaches us. This is the more necessary at the present time because, for selfish reasons, pains are taken to inculcate in the minds of the public, if not of the profession, erroneous views. It serves the ends of the numerous irregular practitioners who treat affections of the air passages by inhalations and other topical manipulations, to say that pulmonary tuberculosis often commences in the throat and larynx, and if not arrested by timely measures, advances downwards, and, at length, attacking the lungs, eventuates in phthisis. So far from this being true, clinical observation shows that chronic pharyngitis is rarely associated with pulmonary tuberculosis; that the great majority of the great number of persons who suffer more or less from the former affection, has no predisposition to the latter affection, and that, in fact, chronic pharyngitis is evidence against, rather than for, the existence of tubercle. Clinical experience also shows that in cases of tuberculous laryngitis the pre-existence of tuberculosis of the lungs is the rule. The existence of chronic laryngitis, as already stated, is presumptive evidence that a deposit of tubercle in the lungs has already taken place. In making these remarks I do not wish to be understood that topical measures are not often useful in tuberculous laryngitis. But I wish to impress upon you that the popular idea respecting the progress of tuberculous disease from above downwards, is opposed by pathological laws established by clinical experience.

In now leaving this subject I shall pass around the larynx taken a few days ago from the body of a patient who died in one of my wards with pulmonary tuberculosis. The voice in this patient became husky a few weeks before his death. The vocal chords are thickened, and a small ulcer is seen near their anterior junction. Numerous small ulcerations are seen in the trachea below. The larynx in this specimen is but little affected. Not infrequently we find extensive ulcerations, destroying, to a greater or less extent, the vocal chords. In order to compare better the morbid appearances, I place by the side of the morbid specimen the larynx taken from the body of another patient dead with phthisis, the parts in this case being perfectly healthy.

Dr. EDWARD RIGBY, President of the Obstetrical Society of London, died on Thursday, December 27th, aged fifty-six.

Original Communications.

PATHOLOGY OF TETANUS.

By W. HANNA THOMSON, M.D.,

OF NEW YORK.

If we took the views that have prevailed respecting the pathology of tetanus in their historic succession, we should naturally expect to find it about twenty-five years ago, a strongly marked inflammatory affection. Accordingly, French physicians are mentioned by Watson, who, acting on this idea, in one case abstracted fifteen pounds of blood in a few days, and in another bled the patient eight times and applied seven hundred and ninety-two leeches along the spine and to the epigastrium! The main difficulty with this theory is its hopeless disagreement with two sets of facts. One case occurs with every symptom before, and every sign after death, of inflammation of the spinal cord, but with no tetanus; while another dies from tetanus in its most typical form, yet no more traces of spinal inflammation are found than if he had been drowned. Either one of these would be sufficient to spoil the theory, even if inflammatory changes were discovered in a majority of the fatal cases, for they would then prove inflammation to be a symptom only, not an essential element of the malady; but in reality the post-mortem appearances relied on here, would also prove small-pox, typhus, and yellow fever to consist in inflammation of the medulla spinalis.

Structural changes may be allowed a high rank as interpreters of deranged function in *organic* life, for there we seem to have clear and evident relations between structure and function. Where one differs the other does, for the stomach no more resembles the kidney in appearance than digestion resembles excretion. But in the nervous system function appears with a seeming independence of structure well nigh complete and most mysterious, for who will yet venture to pick out from a handful of these white cords, the one which caused sensation or contraction, seeing, hearing, or tasting? Structure, therefore, teaches us less of function in the nervous system than in any other, and tetanus is a functional malady, therefore we must look for its explanation in the conditions of nervous action, not of nervous texture. If we would not look for traces in the brain of a pugilist to explain the terrific blows he deals out, we can hardly hunt for such interpretations of the similarly violent contractions of tetanus, which are as purely the results of nervous operations as are the movements in writing or walking. Nor need we, in abandoning structure as not yet a fit guide to nervous pathology, be compelled to attempt the explanation of the ultimate and primary nervous processes; for while we hold that these inscrutable operations are far beyond the reach of any reagent or any lens, yet there are links in the chain of causation which we may lay hold of; there are conditions requisite for all nervous action, a just and careful consideration of which, we think, may afford us the truest conception of abnormal states.

The great advance made in our knowledge of the nervous system within the last quarter of a century has given origin to a corresponding nervous theory of tetanus, which, with some modifications among different authors, is perhaps the one most generally accepted at the present day. It consists mainly in regarding the nervous system as a mechanism which presents some analogies to an electro-magnetic battery. Certain stimuli, centric or peripheric, call out a discharge of nervous force in currents, the course of which is normally under the guidance of the will, or takes certain predetermined channels, as when the stimuli starting from the surface of the air vesicles are reflected into the motor nerves of the respiratory muscles. In tetanus, a stimulus

or "irritation" starts from a peripheral nerve, which has been implicated in a peculiar lesion, generally traumatic, and when it arrives at the spinal axis, everything thereafter goes wild. The nervous battery enters into a state of "exalted polarity," and a constant discharge is kept up into the voluntary muscles,* causing a cramp, which, according to its extent or violence, may either squeeze the patient to death, or wear him out with pain. "This excitation from transmitted local irritation, becomes persistent, and continues after the local cause has been removed, inducing reflex muscular movements."†

This view of the pathology of tetanus is certainly a great advance on the preceding, for it is based on the laws of nervous function as far as known. As they are enunciated at present, the spinal cord is the essential nervous system that works the body, the automatic motor apparatus, obeying at one end the influences from the cerebrum, and responding at the other to impressions from the periphery, or as they are termed "reflex" influences. In health the cerebrum is dominant as the rider on his horse; but in tetanus, the cord shows an exclusive and excessive susceptibility to reflex stimuli, so as to entirely overcome the control of the brain, and freed from all government, it rends the whole frame. "Similar motor discharges," says Romberg, "occur in spinal meningitis, but the despotism, if I may be allowed the expression, of the reflex function is wanting; which places the muscular apparatus of a prize-fighter under the control of a trifling irritation of the cutaneous surface."‡

This theory of tetanic irritation, as we may term it, is advocated by many of the first minds in the profession, and while we advance some considerations which would seem to point to a different pathology, we do not mean to be considered unmindful of its claims and authorities. And first, it appears to regard the subject in a manner too partial and exclusive, not only in the sense of the old saying, "the nervous system is the animal," but as if it had an absolute and separate existence, like a Geneva watch, containing within itself all the conditions of its operations. But in fact there is no division of the animal system less capable than it of independent action, and the main efforts of the other systems seem directed to the common end of furnishing a constant supply of nervous requisites, lest the briefest withdrawal of them should bring it to a complete stop. The pressure of the finger on the abdominal aorta, exposed in Sir Astley Cooper's celebrated operation, caused instantaneous *paralysis* in the parts beyond the obstruction, and all nervous phenomena will cease for ever after a few minutes' restriction to venous blood. Not only does this taper of life require a constant flow of its oil to maintain its light, but that must be of the right kind and composition, else we shall have all sorts of irregularities proportioned to the degree or kind of these changes. Therefore, as we can annihilate all nervous action by extreme hematic alteration, it can be seriously deranged by lesser changes in the circulation, and all experience teaches us that there is no more frequent source of nervous disease, with symptoms as purely nervous as tetanus ever shows, than there is in a perverted or altered state of the blood. Secondly, many cases of fatal tetanus occur in which the evidences of irritation are wholly wanting. We do not refer solely to the idiopathic form, but to not a few published cases following a traumatic lesion, in which, though there have been but feeble spasm, weak contractions, and little or no pain, yet all the symptoms of nervous exhaustion have nevertheless manifested themselves to the fatal end.

But perhaps the best mode of bringing out the manner in which these facts militate against the theory of irritation, is to argue the grounds of a counter theory, that tetanus is the result of the action, through the circulation in the nervous system of a virus or poison, which in its origin and character bears analogies to the virus of hydrophobia and

* Todd's Clinical Lectures on Nervous Diseases.

† Erichsen's Surgery, 2d Eng. ed., p. 540.

‡ Romberg's Neuroses, Sydenham Trans. vol. ii. p. 107.

the poison of strychnine. In traumatic tetanus, it is owing to the generation, during the processes of healing or decomposition of the fluids about the wound, of an animal poison which, though it may be exceedingly minute in its original quantity (as is the case with the virus of rabies when introduced through some slight abrasion of the skin), yet in a favorable constitution it finds a pabulum brought to it by the circulation in which it is reproduced and multiplied like other zymotic poisons, until the "explosion" takes place, when from its affinities for certain tracts of the cord, and its action on them, the symptoms of tetanus are produced.

In attempting to bring out the analogies between tetanus and hydrophobia from the symptoms characterizing both, the aim is not to prove any relationship between the two, but simply to demonstrate that the pathological states in each are analogous, and therefore justify the conclusion that the causes of each are also analogous. Hydrophobia begins with a virus in a wound, but in many cases both in man and animals, owing probably to its not finding in the constitution the appropriate pabulum for its further development, it never advances a step beyond this, while in others (often a small minority of those inoculated) changes, the requisite length of time for which varies in each case, go on, until finally the specific symptoms set in. To this we have in traumatic tetanus a wound, a certain state of the constitution necessary for the wound to be followed by tetanus, and a period requisite to elapse before the disease can be developed, and which in length presents exactly similar variations with the corresponding period in rabies. In hydrophobia the specific symptoms begin with a local twinge, pain, undefinable sensation, or "irritation," in short, in the seat of the original wound, followed by a catch in the breath from spasm of the diaphragm, spasms of the muscles about the neck and throat, but especially by an excessive sensibility of the *reflex function* of the spinal cord, and finally fatal nervous exhaustion. But we can hardly do better in showing how near this is to the essential pathological state in tetanus, than by grouping some of the common features of the two diseases, as we find them in the accurate and scientific descriptions of Romberg, one of the ablest advocates of the irritative theory of tetanus.

TETANUS.

... An interval of varying length elapses between the period of injury and the outbreak of the disease. Prodromi occur at this time, such as a return of pain and tenderness in the seat of injury even after it has healed and cicatrized. Horripilations are frequent, and may amount to violent rigors [numerous authors mention a vague sense of dread and fear, disturbed dreams, etc.]. Pain in the neck accompanied by slight dysphagia also occurs. The outbreak of the spasmodic attack may occur at the seat of the injury or at a distance from it. The reflex tension is extreme from the commencement. Motor discharges into the muscles occur spontaneously, or they are excited by the slightest irritation, by touching the skin, by commotion of the surrounding air, by noise, by attempts at deglutition, or even by the effect of the imagination; the mere desire to drink or to attempt any

HYDROPHOBIA.

... From the commencement there is an excess of reflex tension, and convulsive agitation results from the most trifling irritation. Horripilations, terror, ill temper, etc., present themselves as precursors. A painful sensation in the bitten wound, which has already cicatrized, precedes the outbreak of the disease, the sensation passing towards the spinal cord. Inflammation of the superficial nerves lying under the bitten part, has been occasionally observed. The most extreme sensibility is manifested to the most indispensable vital stimuli, air and water; not only a current of air, produced by fanning, raising the bed clothes, opening a door or window, but slighter oscillations of the atmosphere imperceptible to the healthy individual, are capable of exciting respiratory spasms and universal convulsions. To the spasms of deglutition and respiration trismus and opisthotonos may be superadded.

movement, causes the patient to shudder and start, which prevents him from carrying out his intention. Death ensues from strangulation, with violent convulsive throes, or more rarely in consequence of extreme exhaustion during the remission, after a deceptive period of rest or relaxation. (Pp. 100-107.)

Death ensues from apoplexy or asphyxia during a paroxysm of convulsions, or it may be from extreme exhaustion, quietly, even under the false semblance of incipient recovery, after the capability to drink had returned. This excess of reflex action places the disease in the category of tetanic affections, among which its exact place is defined by the symptoms.—(Pp. 133-149.)

The variable period between the infliction of the wound and the resulting tetanus would, but for the irritative theory, be called the period of *incubation*, as is its analogue in hydrophobia. "Instances are on record," says Romberg, "in which the tetanus is said to have supervened at the moment of injury, but it is necessary that an interval should elapse between the period of injury, and of the eruption of the disease, in order that the spinal cord be placed in that degree of reflex tension, which we can produce at once in decapitated animals by wounding the spinal cord, or in other cases by poisoning. In these cases, therefore, mere twitchings must have been confounded with tetanus, or the latter was already making its approach." (p. 108.) But it is especially important for us to recognise the essential pathological states of the two diseases, viz. 1, reflex irritability of the same portions of the spinal cord, and 2, nervous exhaustion. We are too apt to be led away by certain striking features of tetanus, such as the severe contractions and the attendant pain, and to consider *them* as the primary elements of the disease. But though we can by chloroform often remove completely both these appalling symptoms, and the sufferer appear for a time as free from disease as a sleeping child, yet the fatal march of the malady is not arrested or changed in the least, death occurring about as soon when the cramps have been controlled, as when they are left to themselves. How entirely independent tetanus may be of either of these elements, or of any apparent irritation, is strikingly shown by the report of the following case, by the celebrated Mr. Solly.

"A boy, aged fourteen, was brought into St. Bartholomew's Hospital with a hand greatly mutilated by machinery. On the thirteenth day he complained of stiffness in the back of the neck. When I saw him, at the expiration of some hours, spasm of the muscles had extended to the chest and abdomen, but none of the muscles were severely or painfully contracted. Still the signs were distinct. The boy was the subject of tetanus, and being placed under the influence of chloroform, I amputated the hand immediately above the wrist-joint. On recovering his consciousness it was obvious that what had been done for the boy, whether the removal of the hand or the administration of chloroform, had been in the direction of good; the pulse had fallen from 130 to 100, and the rigidity of the muscles was greatly diminished, and continued so. The pain was reduced, he could open his mouth to an extent sufficient for the introduction of food. On the following day I found he had passed a tolerably good night, the rigidity of his muscles had not increased, on the contrary, it appeared somewhat lessened. By two o'clock on that day the boy had consumed four ounces of brandy, half-an-ounce of the spirit of ammonia, and eighty drops of laudanum. Still I had no excuse for the trial of woorara, for it was obvious that his dangerous condition was not attributable to the morbid contraction of the muscular system, but to something beyond it. On the third and fourth days his condition was not materially changed. He took food without difficulty, as also his medicine at the required intervals. The ammonia was increased to drachm doses. On the fourth day the rigidity of his muscles had not increased, and those of the extremities were entirely free from spasm. On the morning of the

fifth day he had taken without producing any marked effect on his system for good or evil, about forty-eight ounces of brandy, one ounce of tinc. of opium, and four ounces of spirit of ammonia. And we may form some judgment of the prostrating influence of the disease under which this poor boy was laboring, when we consider that such an enormous power was inadequate to produce the smallest impression on his system. On the evening of the fifth day he died. . . . We are too apt to fix our attention on the local spasm of the muscular frame, as though that condition of the system constituted the essence of the disease, of which it is only a symptom. We rather search for remedies that will abate spasm, than for such as will attack its cause. The above case exemplifies negatively this fact. *The boy died of tetanus, not of spasm.* At no period of his case was the contraction of his muscles so rigid as to cause pain of a severe character. . . . he gradually sank from utter prostration of nervous power, which every remedy employed was incompetent to contend against." (*Lancet*, Sept. 1860.)

(To be concluded.)

A NEW OPERATION FOR THE RADICAL CURE OF HERNIA.

By J. J. CHISHOLM, M.D.

PROFESSOR OF SURGERY IN THE MEDICAL COLLEGE OF SOUTH CAROLINA.

[Reported by H. BAER, Student of Medicine.]

Few subjects have engaged so much attention within the last few years, both among European and American surgeons, as this of the "Radical Cure of Hernia." This is due, doubtless, both to the exceeding frequency of this disagreeable condition, as also to the various methods recently proposed for effecting such a cure. Gerdy, among modern surgeons, led the way; Wutzer, Rothmund, Schuh, Langenbeck, and others, improved upon his method. All these operations propose to effect the cure by inserting a plug into the inguinal canal, and by the irritation thus produced, to excite sufficient inflammation in its coverings, to obstruct, if not to occlude this canal. Each new operation, in its turn, claimed the most splendid results. The successful cases were published by hundreds; but the thousands of failures were unheard of. This was doubtless owing to the fact, that these results were always published soon after the operation; too early to decide positively, whether they would be permanent or not, for the deposit of lymph forming the adhesive bands is very apt to be absorbed, and upon any unusual muscular exertion or "strain," the hernial protrusion reappears, very much to the dismay both of patient and surgeon. Indeed, we may not venture too far in asserting, that the successful cures are, perhaps, generally, cases where the lesion is of recent occurrence, or in individuals but little exposed to undue muscular exertion, and who would find sufficient relief and protection from a good truss. Wutzer's operation is applicable only in recent, small, oblique herniæ; and where we can select our cases, we perhaps may be rewarded with a success of fifty per cent.; but in average cases, failure is the rule, and a radical cure the exception. Nor is this all; for in many cases of failure after this operation, we have the canal more dilated than before, and hence a greater hernial protrusion. This operation, and the principle upon which it is based, are now generally discarded, owing to the fact that Mr. Wood, of London, some two years ago, discovered and published a new and far superior method for effecting the same end. He makes a small subcutaneous incision in the upper and anterior portion of the scrotum, dissects the fascia, and invaginates it into the inguinal canal, then passing a needle with thick thread through three points in the canal, viz. the conjoined tendon, the triangular fascia, and the external pillar of the ring close to Poupart's ligament. The ends of the ligature are left in the two former punctures, and a central loop in

the latter, passing through the pillars of the external ring, and through the same opening in the skin of the groin. A compress of glass or wood is then tied firmly upon the axis of the canal, by passing the ends of the ligature through the loop, and tying over the compress. The advantages of this operation over all its predecessors are obvious, and its successes in a high degree encouraging. It is adapted to inguinal herniæ of every variety, large and small, old and recent, direct or oblique. Even in case of failure, the patient would be in a better condition than before the operation.

Dr. Chisholm, Professor of Surgery in the Medical College of South Carolina, after seeing Dr. Wood operate in June, 1859, thinking that the incision in the skin was unnecessary (as the invagination of the fascia alone did not obviate the objection Mr. Wood expected to meet by this process, viz. the prevention of any dragging upon the invaginated scrotum), modified that operation, first, by invaginating without incision, as in Wutzer's; and secondly, by only making two punctures instead of three, Dr. Chisholm believed that a single loop passed from without through the two columns would be sufficient to obliterate the ring, and keep the columns in apposition, until the lymph effused in the site of the thread would cause adhesion, and permanent obliteration of the ring, restoring the external oblique to its primitive condition, before its fibres had been forced asunder by the protruding body. The first case operated upon in this manner was in November 18, 1859, and the operation has been often since repeated, both by himself and others in this city, with the best results. Dr. Chisholm published this operation in the Charleston Medical Journal for May, 1860. In the London Medical Times and Gazette for Feb'y 4, 1860, two cases are reported by Messrs. Curling and Ferguson, adopting nearly the same modification upon Wood as this of Dr. Chisholm. The honor of priority, however, belongs to the American surgeon, Dr. G. having operated Nov. 18, Mr. Curling Dec. 1, and Mr. Ferguson Dec. 17, 1860. Other modifications of this operation have since been suggested, but of minor importance, such as the different curves of the needles employed, the clamp upon which the ligature is fastened externally, as also the material used for the suture. Although Wood's operation is a great improvement upon all previously devised, it still has its disadvantages. Even if we overlook the incision which complicates the operation, and would deter many from availing themselves of its advantages, we still have the length of time necessary to keep the patient in bed—not less than from twenty to thirty days; after that, a truss has to be worn for a considerable period, to counteract any undue pressure upon the recent inflammatory agglutinations. The suppuration from the sutures, and the continuous pain connected with the inflammation, are likewise disadvantages. These, and other considerations, have induced Dr. Chisholm not to rest satisfied with the successes gained, even by his modification of Wood's operation, but to add a still greater improvement, simplifying the entire procedure, and obviating nearly all the objections which have been, or may be urged to Wood's.

The new operation is as follows:—

The scrotum having been invaginated upon the finger, as the only mode of guiding the needle in its passage—a long strong curved needle, fixed firmly in a handle, and armed with silver wire, guided by the finger, transfixes the scrotum at the apex of the invaginated portion, passes through the internal column, and appears through the skin of the abdomen, when one end of the wire is drawn out. The point of the needle is then drawn backwards, and disappears again in the canal. Its direction is then changed. Whilst still imbedded in the scrotum, and guided upon the finger, its point is made to traverse the external column of the ring near Poupart's ligament, lifting the skin of the abdomen. By gliding the skin upon the needle, the point appears through the small puncture made by the first passage of the needle; when the other end of the wire is seized, the needle is unarmed and withdrawn through the scrotum.

The finger is now removed from the canal, and the two ends of the wire being drawn upon the loop dissect the cellular tissue up to the columns, which it hugs closely. By twisting the two ends of the wire the columns are felt approaching, until they are brought in such close apposition as to allow nothing to pass between them—the spermatic cord, in its exit, filling up all the available space remaining of the ring. When the ring is felt closed, the twisted wire is drawn firmly outwards, and clipped off as close as possible to the skin, so that when the traction on the skin of the abdomen is removed, the gliding back of the integuments to their normal position, conceals completely the ends of the small loop of silver wire. The scrotum has already fallen back to its pendent position, and the only trace of an operation having been performed is in the two small punctures, one in the scrotum, the other in the abdomen, which require a careful search to find them, and which will heal up in a few hours, hermetically incarcerating the silver wire.

A moderate inflammation follows this operation, without much swelling or pain, and without any fear of suppuration. The wire is soon imbedded in a lymphic deposit, which will not only inclose it, thus isolating it from the tissues, but at the same time agglutinates the columns together as an additional security to the success of the operation. The patient is kept quiet in bed for four or five days, until the inflammatory stage passes; opium having been given to insure rest, and prevent any action on the bowels. When the inflammatory stage has passed, a cathartic is administered, and the patient can quit the bed, and in a few days resume his occupations. The silver wire remains as a permanent application. An essential element in the success of the operation is that the loop encircle the columns of the ring near their points of attachment to the pelvis; otherwise the columns cannot be approached, the ring remains open, and the results can only be negative. If this step of the operation be carefully followed, a radical cure may nearly be guaranteed.

The advantages of the operation are as follows: the patient is not detained in bed on his back for three or four weeks as in Wood's or in Wutzer's. No excess of inflammation is to be apprehended. No subsequent use of a truss is required, and there is no fear of a return of the rupture from the giving way of the recently formed but still delicate adhesion, through any undue muscular effort on the part of the patient, for the reliance is upon the silver bond—the surgeon having provided his patient with a never-failing silver truss. The operation is applicable to herniæ of every character. When the protrusion is large, and the ring voluminous, several points of suture might be applied, through the same puncture in the scrotum, and skin of abdomen, taking advantage of the facility of gliding these integuments over any portion of the external abdominal ring.

The objections which may be urged against this operation will probably be, that the silver wire will always act as a foreign substance; but from the experience of Drs. Sims, Simpson, Moffatt, and others, we may assume that this is not the case, and from experience in its application in hernial operations, we know that it can remain harmlessly imbedded in the tissues for any length of time. Of course, flax or silk sutures cannot be used in this subcutaneous operation. Another objection perhaps may be, that the cut-off twist of the wire will irritate and ulcerate the skin. But this has not been found so, for the skin here is very loose, and therefore not so liable to be injured by a small foreign body beneath it; and we have every reason to believe, that a deposit will soon encase it, and render it permanently innocuous. These views were first practically carried out upon the living subject, Nov. 17, 1860, at the surgical clinique, in the presence of the class and a number of professional gentlemen. Three cases have since been operated upon. And as herniæ are exceedingly common lesions among the laboring negro population of the southern states, and as the carelessness of this class of people renders the advantages of a truss nugatory, ample opportunity will

be afforded of testing in time the validity and superiority of this operation over all other modes of radically curing inguinal hernia.

Reports of Hospitals.

NURSERY AND CHILD'S HOSPITAL.

[Reported by J. LEWIS SMITH, M.D., Curator.]

THE case narrated below is interesting, on account of the extent of the fibrinous exudation, which was such as to render any method of treatment unavailing. Another feature of interest was the colitis. Thickening and vascularity of the mucous membrane of the colon, have been present in a large proportion of the autopsies made in this institution, although the derangement of the bowels may have been so slight as scarcely to attract attention. There has often been only moderate looseness without pain, tenderness, or any noticeable febrile reaction; the stools being perhaps green and rather more watery than natural. Ulceration of the mucous surface has rarely been observed in these cases, except in the colitis connected with the summer complaint, or the so called cholera infantum, in which it is common.

December 5, 1860.—Service of FOSTER SWIFT, M.D.—H. T., one year old, and previously healthy, was observed to have moderate looseness of the bowels, in the latter part of November, such as often results from trivial causes. It was, however, only partially checked by treatment, and he began to lose flesh. About the first of December, hoarseness of the voice and a cough, but not clear or ringing, were superadded to the abdominal symptoms. The obstruction in the larynx increased, but it was not at any time so great as to threaten suffocation. He gradually failed, and died exhausted on the 5th of December.

Autopsy.—The fibrinous exudation extended from the tip of the epiglottis to, at least, the third or fourth division of the bronchial tubes; it was easily detached, and the membrane underneath was intensely injected; the minute bronchial tubes contained no fibrin; the left lung was readily inflated, and of healthy appearance, except a little of the posterior portion of the lower lobe; lower and middle lobes on the right side, solid, non-crepitant, and of a dark red color. On the posterior surface of this lobe, and in the fissure between it and the rest of the lung, were adhesions; the solid portion of the lung contained the "compound granular corpuscles," and the smaller round granular cells, which pathologists now recognise as indicative of pneumonia; mucous membrane of the stomach, and small intestines, healthy, with the exception of a few vascular streaks upon the former; that of the colon, especially the descending portion, contained vascular patches, with but moderate thickening, and no relaxation; the heart, liver, spleen, and mesenteric glands were healthy, unless slight enlargement of the last; the kidneys had a lighter hue than natural, but under the microscope, the Malpighian bodies and the tubuli uriniferi presented the usual appearance.

UNIVERSITY MEDICAL COLLEGE.

PROF. ALFRED C POST'S SURGICAL CLINIC.

January 5, 1861.

ENLARGEMENT OF TONSILS; EXCISION. MULBERRY CALCULUS; BILATERAL OPERATION OF LITHOTOMY. DISLOCATION OF HEAD OF OS BRACHII ON THE DORSUM OF THE SCAPULA; ANCHYLOSIS.

CASE 25. *Enlargement of Tonsils*.—Operation.—The patient, æt. 17, before you, gentlemen, has a chronic enlargement of both tonsils. This condition interferes more or less with the functions of respiration and deglutition; it causes the patient to snore when he sleeps; it renders the patient

liable to frequent attacks of acute inflammation of the fauces; it makes the voice thick and indistinct in speaking and in singing; and it sometimes impairs the hearing by encroaching upon the orifice of the eustachian tube. There is not much to be gained by internal medication, or by local applications, in reducing the volume of the enlarged tonsils. Excision is the appropriate remedy. The operation may be performed by means of a sharp hook and a bistoury; but the depth of the part to be removed, and the difficulty of keeping the mouth open, occasion some embarrassment to the operator. There is also some danger, when the operation is performed with these instruments, that the incisions may be too deep, and that troublesome hemorrhage may ensue. The best mode of removing an enlarged tonsil is by means of an oval ring which embraces the tumor; the ring consists of three blades, of which the middle one moves between the other two, and, having a sharp edge, it cuts off the projecting portion of the tumor, which has been previously fixed by piercing it with a sharp spear. In operating on the left tonsil, it is most convenient for the surgeon to stand or sit before the patient. In operating on the right side, it is easiest to operate in the dentist's position, that is, standing behind the patient. (The professor then removed the left tonsil, and afterwards the right.)

CASE 26. *Mulberry Calculus—Lithotomy.*—This boy, L. C., æt. 7 years, was brought to our last Clinic. He is, as you perceive, a child of very imperfect physical development for his age. His father says that he has had pain and difficulty in voiding his urine, since he was a year old. The paroxysms of pain are sometimes very severe, and at such times he presses upon the glans penis, and pulls the prepuce. These symptoms indicate the strong probability of the existence of a stone in the bladder, but the diagnosis of stone can never be made perfectly clear without a physical exploration. I accordingly introduced a steel sound, and felt the sensation occasioned by the contact of the sound with a hard substance in the bladder; an obscure click could also be heard when the point of the sound was brought suddenly into contact with the stone. There are six methods of removing stone from the bladder; 1st. *Lithoboly*, or the expulsion of the stone with the stream of urine. This is practicable only when the stone is of very small size. 2d. *Lithospasty*, or the extraction of the stone through the urethra with long forceps. This method is applicable only to small stones, but a little larger than those which can be expelled with the urine. 3d. *Litholysis*, or the solution of the stone in the bladder, by solvents injected into that cavity. This method is only applicable to calculi composed of the phosphates, and of a very moderate size. 4th. *Lithectomy*, or the dilatation of the neck of the bladder, and the subsequent extraction with forceps. It is chiefly in the removal of stones from the bladder of the female, that this practice is resorted to. A modification of this method has been employed in the male subject, viz. making an incision into the membranous portion of the urethra, and then dilating the neck of the bladder. The operation has only been performed in a few instances, and the results have not been satisfactory. 5th. *Lithotripsy*, or *Lithotritry*, consists in crushing the stone within the bladder, and reducing it to fragments of such a size that they can be expelled through the urethra. I regard this as the best operation for the removal of calculi of moderate size from the bladder of an adult subject, when there is neither stricture of the urethra, nor enlargement of the prostate, nor any remarkable irritability of the bladder, provided that the stone is too large to be removed by the first or second method. 6th. *Lithotomy*, or the extraction of the stone through an incision made into the bladder. This is the best operation for children; and also for adults, when the stone is more than an inch or an inch and a quarter in diameter, or when the bladder is irritable, the prostate enlarged, or the urethra contracted. There are three regions in which the incision may be made into the bladder. 1st. In the perineum. 2d. Through the rectum. 3d. Above the pubes. The operation through the perineum is prefer-

red by the majority of surgeons. There are two principal methods of performing it, viz. the lateral operation in which the incision is confined to the left side of the perineum, and the bilateral operation in which the incision is on both sides. The bilateral operation is the one which I usually prefer, and is the one which I propose to perform in this case. I shall commence the operation by introducing a grooved staff through the urethra into the bladder. I shall then make a crescentic incision through the perineum, the concavity looking towards the anus, and at a distance of about three-quarters of an inch from it. With a sharp-pointed bistoury, I shall then open the urethra into the groove of the staff, and then introduce into the bladder the rod of my double prostatotome, and push on the blades into the bladder, dividing the prostate on each side, after which the operation will be completed by introducing the forceps, and extracting the stone. The safety of the patient depends very much on making a free external incision, and on confining the incision into the neck of the bladder strictly within the limits of the prostate gland. In this way, the danger of infiltration of urine is most effectually guarded against. (The patient was then placed on the table, and was brought into a state of anæsthesia by the administration of the vapor of sulphuric æther, when the operation was performed as above described. The stone, which was extracted, was of a small size, weighing only fifteen grains; its surface was uniformly rough. Prof. P. then introduced his finger into the bladder, and explored its cavity, but could not detect any other calculus.)

COLLEGE OF PHYSICIANS AND SURGEONS.

PROF. PARKER AND MARKOE'S CLINIC.

January 7, 1861.

CASE XXII. *Inguinal Hernia.*—The patient, a boy nine years' old, the mother states, has always enjoyed good health. When he was six weeks old she noticed, for the first time, a swelling of considerable size upon the left side of the scrotum, which entirely disappeared at times, returning whenever the child made any exertion. She consulted a surgeon in regard to it, who pronounced it congenital hernia, and applied a truss over the parts, which for ten days has prevented it making its appearance.

Remarks.—By the term congenital hernia we understand, that a portion of intestine lies in the cavity of the tunica vaginalis, in contact with the testicle. The disease is common in childhood as the result of the non-closure of the passage through which the testicle has descended; any sudden effort, however, on the part of the patient, at any time of life, may force a portion of intestine through the septum, producing the same variety of hernia. This is much more liable to occur in young men, between the ages of eighteen and twenty-five, than in young children, on account of the greater tendency to sudden and violent exercise at that period of life.

Treatment.—Consists in the reduction of the intestine, and the retention of it there, by a truss, until the passage by which it descended has become occluded. In a child of this age, the indications are easily carried out, the instrument commonly producing a radical cure. But in the adult we rarely succeed so well; the truss being merely a palliative measure. In such a child as this the common snake truss is the best.

CASE XXIII. *Encysted Tumors of the Scalp; Operation.*—Margaret B., æt. 68, presents herself with two tumors, developing themselves in the cellular tissue beneath the scalp. She has noticed them for a number of years. The smallest one is about the size of a filbert, oval, smooth, movable under the integument, and to the touch appears solid. The other is of more rapid growth, and much larger, being about the size of a pullet's egg; it is also round, smooth, movable under the integument, but has a fluctuating elastic feel. They have never given her any trouble, save the annoyance created by their simple presence.

Remarks.—The pathology of these tumors is simple. They are composed of a dense cyst of cellulo-fibrous tissue, containing a cheesy looking substance, composed for the most part of fat, cholesterine, epithelial scales, and oily serum, mostly occurring as the result of obstruction to the excretory duct of the sebaceous gland, and loosely connected to the subjacent cellular tissue. Their tendency, if untouched, is to become thinner in consistency; for the cyst to take on inflammation and suppuration; therefore, the proper treatment is removal; being careful that no portion of the cyst remains, or reproduction will be the consequence.

Operation.—There are two methods of removing these tumors, which can be illustrated upon this patient. The first is to lay the cyst open by a simple incision, and then seizing with a pair of forceps and removing it from its loose cellular bed. This operation is best performed upon those tumors of firm, semi-solid consistence, as is the case with the smaller of these. The second operation consists in carefully dissecting off the integument and cellular tissue from the tumor, and then enucleating it entire with the handle of the scalpel; taking great care not to wound the cyst, or the fluid will escape, making it a bungling operation. In this particular case, the tumor being large, a portion of the integument has been removed with the cyst, in order that the lips of the wound may come in better apposition. The after treatment consists in applying a compress of lint over the part.

American Medical Times.

SATURDAY, FEBRUARY 2, 1861.

THE STUDY OF MEDICAL ETHICS.

THE Code of Ethics of the American Medical Association has now been the recognised standard of medical morals in this country for nearly fourteen years. It was prepared by the wisest members of our profession, among whom we recognise the honored and trustworthy names of Drs. BELL, HAYS, and EMERSON, of Philadelphia; Prof. CLARK, of N. Y., and Prof. ARNOLD, of Ga. When submitted to the Convention of 1847, the Code was adopted unanimously. Since that period no one has dissented from its provisions, but every legitimate medical organization in the country has adopted it; and thus it stands as our organic medical law. This document defines with admirable simplicity and purity of language, and with the nicest appreciation of the exalted spirit of scientific medicine, the duties of physicians to each other as members of a liberal profession, and the reciprocal obligations which exist between them and the individual members of society. It is, in a word, the guide to the formation of a true medical character. And yet how little is this regarded by physicians, and how few are familiar with its admirable provisions? Of the hundreds of graduates who are annually introduced to the ranks of the profession, how few are aware of even the existence of such a chart to professional excellence, much less imbued with its spirit?

There are at this time between four and five thousand medical students receiving instruction at the various colleges in this country. These young gentlemen are daily and sufficiently drilled in anatomy, physiology, chemistry, microscopy, obstetrics, and therapeutics, while they are employed far into the night in dissecting, and thus verifying

upon the dead subject the text of the morning lecture. Class after class thus enters the college, is graduated with honors more or less emphatic, and joins the great procession of hygiean ministers in the world at large. It is usual, on the commencement day, for some venerable physician to address the departing graduates; to dwell upon the duties and responsibilities awaiting them in their new relations to society; to encourage them by the hope of success; to stimulate their ambition by the example of great lives which have adorned the profession; then, with a parting blessing, the young Esculapians are dismissed to their great encounter with the realities of medical practice.

Now, except in the commencement address, where accidentally it may be alluded to, we would ask whether it is usual in any of our medical schools to deliver any *set* lectures on Medical ethics? Is even *one* annually and invariably delivered to the students? We ask this for information, because we have never heard that any such dissertations were read as part of the curriculum of instruction.

Admitting this to be so, the inquiry naturally arises whether our colleges can be said to do their whole duty towards students in fitting them to practise successfully, when they fail to instruct them in those rules of professional intercourse whose observance brings them, antecedently even to intellectual merits, the approbation of their fellow-practitioners, and on the contrary, whose violation insures them the certain and immediate reprobation and scorn of their professional brethren. If an individual wishes to rise to meritorious eminence in any profession he must, first of all things, secure to himself the sympathy and the respect of his fellow-laborers. Without that he can never permanently sustain his status among gentlemen. For, although he may rise spasmodically, and flutter in mid air awhile upon waxen wings, yet the inexorable sunlight of Truth will speedily dissolve these frail supports, and leave him to flounder among the shoals of pretenders who swarm in the lower depths of the profession.

It does not follow because a man's brain is as full of learning as Lord Bacon's, that he may not at the same time be a most unmitigated boor, whose self-conceit or selfishness lead him alike to trample upon the rights and the feelings of his professional brethren, in his insensate haste to become rich, or to gain the bubble reputation. These things are of too frequent occurrence not to have been noticed by all, and it is not difficult in any community to point out some physicians who, great enough in intellectuality, are yet moral idiots in respect to the dignity and the honor of the profession they follow. Such men, whatever their talents, their wealth, or their factitious distinctions, are still living in virtual outlawry to the canons of medical ethics, nor can the ephemeral praises of an indiscriminate press indemnify them for the lost sympathy and respect of their fellows. Pitable indeed is the condition of that man who is shunned by his peers, whose name provokes only contempt, and who is dismissed from the thoughts as one fallen from the high estate of a Christian gentleman and an honorable man.

Let these things, in all their length, breadth, and strength of application, be taught to the young men in our medical colleges. Let them understand that the moral side of a physician's character is quite as important as the intellectual. Nay, that in advance even of any knowledge of his intellectual capacities, the public will be favorably inclined

towards him whom his fellow-practitioners recommend and advance. It would take no large amount of time, nor make any serious interruption in the course of medical studies, to have one lecture a week delivered on the subject of professional ethics. There are gentlemen enough in and out of our medical faculties who would be happy to do thus much to preserve the dignity of the profession; who would be willing to instruct students in that code of medical ethics which is the basis of professional respectability. And, in particular, it will be a source of satisfaction and pride to our colleges to know that, besides making physicians, they have made men of refinement and dignity. Each faculty in its own college thus becomes a *humanizer* as well as an educator of young men.

In this fervent hope we now commend the subject to the earnest attention of our medical schools, not doubting that they will see in these crude suggestions the inklings of so much truth as will prompt them to incorporate in the course of their instruction some few lectures on medical ethics.

THE WEEK.

INSANE persons, with depraved and dangerous propensities, are so frequently permitted to roam unrestrained about our streets, that we are prepared to witness tragedies the most horrible and sudden at any time and in any place. On the 7th of December last, this city was thrown into a fever of excitement at the report of the shocking murder of Mrs. Shanks, a worthy seamstress and shopkeeper, while at her breakfast in the parlor adjacent to her store. This fiendish act was perpetrated in an open apartment on a busy street, within a few steps of Broadway and Union Square. The murderer was a lad well known in that neighborhood as a strange and sullen fellow, and to the judicial authorities he was known as a person of unsound mind and uncontrolled propensities to commit crimes against property and life. To the police he was known as an epileptic whom they often rescued from harm when suffering his unfortunate seizures in the streets. He sometimes had as many as twenty-five of these fits in a single day, and his mind was so affected that his parents could do nothing with him. After having been four months in a Lunatic Asylum he was permitted to return to his parents' home and go at large in the city. Having at one time set fire to some shops and a public school-house, he was judged guilty by the prosecuting officer, but allowed to go unrestrained upon condition his parents would remove him from the city! And now, at last, this miserable young man, after such a career and such unmistakable evidence of mental and moral insanity from a well known physical disease, yields to his fiendish impulses and brutally murders a worthy shopkeeper who has previously shown him peculiar kindness. The deed was manifestly an impulsive one, for strolling into the little store, and seeing the woman at her breakfast, he seized the knife with which she was cutting a loaf, and instantly cut her throat from ear to ear. After the deed he was shy and fearful, and he started upon an emigrant train for the West. Being arrested and returned he attempts to cover and deny his crime, as a sane man would do, and as a lunatic might, but without success. The fact of his insanity had been as clearly established before as it has been since the murder; and his dangerous proclivities

were known. The prosecuting officer at first declined to admit the plea of insanity; but on Saturday last, after hearing the simple story of the lad's physical and mental disorders, he was promptly ordered to the State Lunatic Asylum.

In the name of humanity, we ask the State Legislature for a competent and properly authorized COMMISSION OF LUNACY, who shall exercise the proper advisory and legal direction over the insane.

DR. GUNN's re-appointment to the Quarantine Health Office is regarded as gratifying testimony to that gentleman's personal and official integrity. The plans for reforming our Quarantine system having been definitively settled by the National Quarantine and Sanitary Convention, and the views and necessities of the commercial community having been clearly set forth by the Chamber of Commerce, the responsibility of encouraging and officially aiding the work of reform is now thrown upon the Health Officer; and by a cordial and fearless discharge of this duty he may be instrumental in giving to the city and port of New York such an improved Sanitary System and such reforms of Quarantine as the necessities of this great centre of population and commerce now require. A greater privilege or a higher honor no physician could desire.

THE error in the date of one of our Society Reports which furnished a contemporary with the subject for an editorial, was purely accidental. The deliberate charge of an intentional falsification of dates is utterly unworthy.

We desire to call attention to the letter of Dr. Willard, Secretary of the New York State Medical Society, in another column.

Progress of Medical Science.

OPHTHALMOLOGY.

By HENRY D. NOYES, M.D.

Glaucoma and its Treatment.—This disease, formerly set down as one of the *opprobria medicorum*, has of late years been attacked with new vigor to determine whether it cannot be made to yield to surgery, since the endeavors of medicine have proved of little avail.

The operation of Prof. von Graefe, of Berlin, promulgated in 1857, and which has excited much attention, consists simply in cutting off a piece of the iris. The membrane is drawn by forceps through a wound made at a point one line behind the juncture of cornea and sclerotica, and snipped off with scissors. The breadth of the piece removed is to be about one-sixth of the circumference of the iris. Great care must be exercised to cut off the excised portion clear to its marginal or ciliary attachment, and for this purpose the wound is made in the sclerotica.

The effect of this proceeding is, that whereas the eyeball was hard and tense, it afterwards becomes softer, and very seldom resumes its unnatural hardness. The reason why this effect follows is a subject of difference, and no explanation has been considered unexceptionable. Prof. Graefe thinks it is because, since the iris furnishes the aqueous humor, the extent of secreting surface being diminished the quantity of fluid is therefore lessened. Another reason he thinks to be that by cutting away the piece of iris, the power of accommodation is enfeebled, and this assists in the relaxation of the tunics of the eye.

Prof. Graefe thinks Glaucoma to be a choroiditis with serous effusion: and distension by superabundant fluid to

be the cause of the principal phenomena that mark the disease. These phenomena of distension, or "intra-ocular pressure," are, flattening of the cornea, pushing forwards of the iris and lens, pressure on the retina, and depression or excavation of the optic nerve:—the whole globe becomes hard to the touch. The dilation and immobility of the pupil, as well as the tormenting frontal headache, are explained by the effect of the distension upon the ciliary nerves.

Prof. Graefe's operation has been repeated in England at the Royal London Ophthalmic Hospital. The results appear in 84 cases of Iridectomy for Glaucoma published by Dr. Bader, House Surgeon. The operations were done by all the surgeons, and it is only necessary to mention the distinguished names of Messrs. Bowman, Critchett, and Dixon. Mr. Hulke has also published papers in the *London Medical Times and Gazette*, setting forth the results of Iridectomy in Glaucoma, and also in other diseases to which the operation has been extended, such as chronic and recurring Iritis, staphyloma of the cornea.

The 84 cases of Dr. Bader present the following results:—that is, the results upon vision, not the relief or aggravation of pain, which is also an important point in judging the operation. It must be premised that Glaucoma is divided into three states, viz. chronic, sub-acute, and acute. The first requires no explanation; the second or sub-acute differs only in duration of symptoms and degree of blindness. The acute has sudden extreme congestion of the conjunctiva and sclerotic, dilated pupil, and loss of vision with violent pain. Acute Glaucoma is acute choroiditis or irido-choroiditis, in which the characteristic product of inflammation is effusion of serum and not of lymph. Chronic Glaucoma may or may not be preceded by acute Glaucoma.

Chronic Glaucoma, 29 cases—operated on by Iridectomy.

Remained unchanged, 18.

Not as good as before operation, 1.

Improved, 10.

The improvement consists in obtaining perception of lights and shadows, 5; in the power to perceive large objects, 3; in the perception of small objects, 2.

Sub-acute Glaucoma, 29 operations.

Remained unchanged, 10.

Made worse, 0.

Improved, 19.

To specify the degree of improvement. Those who gained merely perception of light and shadow, were 8; could recognise the fingers and large objects, 4; with these may be ranged 4 who had "slight improvement;" could read ordinary print and see small objects, 3.

Acute Glaucoma, 26 operations.

Unchanged, 5.

Made worse, 1.

Improved, 20.

Of the improved one gained "perception of shadows;" 9 could recognise large objects; 10 could read ordinary type and discern small objects.

Total of 84 operations—made worse, 2; not benefited, 33; benefited, 49.

The ill success in chronic Glaucoma, and the greater success in acute Glaucoma, will not escape observation.

But Iridectomy is not the only champion that assails Glaucoma. Mr. Hancock, of the London Royal Westminster Ophthalmic Hospital, has formed another theory of the pathology of the disease, and devised another operation against it. He believes the ciliary muscle (tensor choroidæ) to bear an important part in the morbid process. He observed that many eyes affected with Glaucoma had a pear shape, that is, a constriction just at the situation of the ciliary muscle. He claims to have cut the knot which it has puzzled so many to untie. Mr. Hancock describes his manner of operating thus: "I introduce a Beers cataract knife at the outer and lower margin of the cornea, where it joins the sclerotic. The point of the knife is pushed obliquely backwards and downwards until the fibres of the sclerotic are divided obliquely for rather more than $\frac{1}{4}$ th of an inch; by this incision the ciliary muscle is divided."

The constriction by the ciliary muscle upon the eye is certainly original with Mr. Hancock, and as a theory it presents more difficulties than that which Prof. Graefe maintains. Theoretical perplexities are not much to the point, however; let us turn to the results of operation. Before presenting the cases it may be remarked that the operation is easy of performance—does not require so much care as a proper Iridectomy; it seldom leaves any deformity of the pupil; the lens are not so liable to be interfered with. Mr. Hancock is strenuous in asserting that his operation cannot be designated as simply paracentesis scleroticæ, because that proceeding has been proved to be ineffectual, and in two of his successful cases there was no fluid let out of the vitreous chamber. The aqueous humor does escape, and in the majority of cases fluid flows from the vitreous chamber.

There were 31 operations, and of these

10 remained unbenefited, being left in the same condition as before operation.

6 recovered perception of light.

5 recovered perception of objects, being able to discern keys, pencil cases, tell the time, &c.

10 recovered the power of reading, none of them having been able to distinguish a letter, even, before operation.

Total of 31 operations—unchanged, 10; received benefit, 21.

Besides this general summary there is an abstract given of the particulars of 16 cases. In all, the prominent features of Glaucoma are described, such as hardness of the globes, immovable and dilated pupil, a greenish reflex from the fundus oculi, the lens sometimes opaque, pain, flashes of light, and impairment or loss of sight. In five cases the patients were suffering acute symptoms with injection of the conjunctival and sclerotic vessels and severe pain—these cases were promptly relieved by the operation.

In only a single case of the 16 is it expressly stated that the eyeballs had a pyriform shape, although in two cases the globes are said to be prominent. One would think that if constriction by contraction of the ciliary muscle were the important factor in the disease, Mr. Hancock, if he had actually observed it, would have recited this among the symptoms of the cases. If when it were present he noted it, it may be inferred that in cases where this symptom was not noted it was not present. This staggers confidence in Mr. Hancock's theory, although not militating against his practice. Another criticism that may be justly made, is that in cases where the lens and vitreous humor are not said to be turbid, ophthalmoscopic examination was so seldom made. In only one case are we informed of the condition of the retina, the choroid, and the optic nerve. The pressure upon the optic nerve and retina, as proximal cause of the loss of sight, is distinctly seen in excavation of the nerve; this condition, if it can be discerned, is too important to be omitted in describing a case of Glaucoma. One word more: the improvement of sight after Mr. Hancock's operations was not immediate—in most cases it slowly advanced during many months, and this must be borne in mind in trials of his operation.

Since the above was written, Mr. Hancock has contributed another paper on his operation. It is found in the *Ophthalmic Hospital Reports*, No. 12. He presents no new cases, but re-states his former views. He assigns a gouty or rheumatic diathesis as the original cause of Glaucoma, and the special symptoms to depend mainly upon constriction and hindrance to circulation in the region of the ciliary muscle. The ciliary muscle, he says, may be completely atrophied, or on the contrary thrown into undue action; in either case he thinks glaucomatous symptoms are capable of arising. He argues against the production of the symptoms by intra-ocular pressure, but he brings no facts or experiments to support his argument. His assertions on this point are by no means convincing.

In the *Medical Times and Gazette* for Oct. 27th, is a letter from the venerable ophthalmologist, Mr. Lawrence, relating in brief two cases of iridectomy for Glaucoma, which he had the opportunity of seeing in Mr. Bowman's practice.

Both were well marked cases, in persons above fifty years, and acute attacks. The operation done within a week. In both there was immediate relief from pain, and subsequent improvement of sight. In one case the improvement advancing during two years, until from mere perception of light, the power to read fine print was gained. In the other case both eyes were successively attacked and operated on. The first eye in three months advanced from ability to distinguish fingers, to reading Jaeger's No. 3 (Agate). The second eye, operated forty-eight hours after the attack began, could only discern large objects; two weeks afterwards could read No. 9 (Pica).

In reviewing all that has been done in four years to cure Glaucoma, the reported cases of benefit are too numerous, and the character of the operators is too exalted, to permit these efforts to be dismissed from consideration by witty sarcasm and ridicule.* Neither Iridectomy nor division of the ciliary muscle may be accepted in the final judgment of the profession as the proper operative proceeding, much less that the theories give the explication of the malady. While in chronic Glaucoma little benefit is obtained by any operation, it is evident that cases of Glaucoma less inveterate, have been ameliorated by both the methods of operation.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY:

DR. E. KRACKOWIZER, PRESIDENT.

Stated Meeting, Jan. 9, 1861.

(Continued from page 50.)

EXSECTION OF HEAD OF FEMUR AND TROCHANTERS FOR MORBUS COXARIUS.

DR. JAS. R. WOOD exhibited a specimen of the upper portion of the femur taken from a lad 17 years of age, who was admitted to Bellevue Hospital about a year ago. The patient had symptoms of hip-joint disease, which were somewhat obscure, but sufficiently pronounced to warrant the commencement of treatment for that disease. He remained in the Hospital until the July following, when an abscess formed, which discharged itself in the groin. I looked after him, said Dr. W., during the summer months, and caused him to be readmitted late in the fall. With the consent of my colleagues, two weeks ago last Saturday, I commenced the operation of exsection of the head of the femur, together with both trochanters, and about two inches of the upper end of the shaft. I commenced my incision three inches above the trochanter major, and extended it for two inches below, cutting down upon the trochanter and making my way along the surface of the bone to the joint. Opening the joint, which was effected very readily, I discovered that the head of the bone was very much diseased, and also the upper end of the shaft. I then found that the usual plan of dislocating the head of the femur could not be followed, which was on account of the enlargement of the upper end of the bone, being twice its natural size, denuded and eburnaceous. The specimen is a very interesting one, and the attendant result is equally so. He was placed in wire-breeches, and has been kept there ever since. The wound has now nearly healed, the constitutional irritation has subsided, and he can move himself about without any pain or difficulty. I would remark that the amount of shock following this operation was not nearly so great as that which we every day experience after amputation of the thigh. I attribute this result to the fact, that in resection we leave the wound open, thus allowing of no chance for the collection of matter in a bag, such as is formed when the flaps are brought together.

* See Dublin Quarterly Journal, article on "Medical Epidemics," in October number.

SERO-CYST OF THE BREAST; REMOVAL.

Dr. WOOD presented a second specimen, a sero-cyst of the breast, removed the day before yesterday from a maiden lady, 35 years of age, and a native of Newburgh. Her physician states that he discovered below the left nipple about six months ago a small tumor, which in a short time became indurated. I examined the case very carefully, and found the hard portion referred to; and inasmuch as there was no enlargement of the axillary glands, neither contraction of the nipple, I recommended a removal of the breast. On making a section of the mass after the operation, I came to a sero-cyst about the size of a black walnut, and which communicated with the ducts of the nipple. I present the specimen more particularly because of the rarity of the disease. I can remember but four cases of this sort which have been presented to the Society, and in one of these there was a large fungus growing from its walls.

This cyst has been examined by Dr. Hicks, the House physician of Bellevue Hospital, who makes the following report:—First, in the juice scraped from a freshly cut surface of the tumor, cells varying in size and shape, possessing, however, the common characteristics of rounded outlines, and definite cell contents; (a) cells rounded in form, containing one or more large nuclei, with distinct nucleoli, and granular matter; (b) cells fusiform and caudate in outline with nuclei and nucleoli and granular matter; (c) cells corresponding in form to those described in (a) but having no nucleus; aggregations of cells uniform in size, containing granular matter and possessing rounded outlines; collections of oil globules, uniform in size, and isolated and of variable size.

Secondly: On examining a *thin section*, the microscope exhibited a well marked fibrous stroma, in the areolæ of which were imbedded cells corresponding in character with those already described. A portion of one of the lobes of the gland itself exhibiting the lobules and gland vesicles proper, gave no evidence of any implication in the degeneration of the surrounding structures.

CANCEROUS LIVER.

DR. O'RORKE exhibited a specimen of cancerous liver. D. S. K., æt. 48, a native of Ireland, had been complaining for some ten years with pains about his liver, and for the last two months had been jaundiced. He was under the care of an irregular practitioner for cedema of one of the lower extremities, and said that the bandages were so tightly applied that they caused gangrene of the toes. On the 11th of September, he entered St. Vincent's Hospital, and died exhausted with the disease on 30th of December following.

DR. FINNELL stated that he had dissected out the arteries in the cedematous limb, and found in the abdominal aorta just where the iliac artery is given off, there was a large atheromatous deposit; this diseased condition was also noticed to some extent in the primitive iliac artery, and in all the arteries below throughout the limb, with the exception of the external iliac, which seems to have escaped altogether. Dr. F. remarked that a ligature applied to this latter artery, would give the only hope for obliteration of the vessel, in case aneurism existed. The venous trunks of the limb were plugged up with fibrinous exudation.

ENCHONDROMA OF LUNG WITH SYMPTOMS OF EMPYÆMIA.

DR. O'RORKE presented a second specimen of cancerous degeneration, which was a lung, removed from a young man 28 years of age, a native of Newfoundland. While aboard a whaler as cooper, he injured his knee, and from all accounts synovitis ensued, which in the course of time necessitated the removal of the limb. The operation was performed at the Hospital in Honolulu. He enjoyed fair health after this until last April, when he had a chill followed by fever, a hacking cough but no expectoration. He

entered St. Vincent's Hospital on the 19th of October. The physician in attendance looked upon it as a case of pleurisy with effusion. Dr. O'Rorke saw the patient on the 10th of November, and was requested to evacuate the chest, but the doctor did not favor the operation, and it was postponed. Shortly after, he commenced his term of service, when he found dulness over every part of the right chest as before, and absence of respiration; the side was also dilated, measuring considerably larger than the other. There was no oedema of the face or extremity; no enlargement of the veins of the neck, or thorax, with the exception of the two from the axilla to the neck. The heart was pushed to the left, the apex being $2\frac{1}{2}$ inches to the left of the nipple. The patient being very anxious that something should be done, Dr. O'Rorke supposing the case to be one of empyæma, attempted to withdraw the fluid by puncture of the chest, but no fluid appeared, and strange to say the patient appeared to be very much better from the attempt. On the 30th of December, about three weeks after this, he died suddenly.

On *post-mortem examination*, the whole substance of the right lung was found occupied with the deposit of enchondroma, and at two points it descended to make its way through the diaphragm. There were also deposits of the same material in the lower portion of the left lung. The patient complained of very little pain, but a good deal of dyspnoea, which latter was aggravated by sitting in an erect posture. The organ weighed $15\frac{1}{2}$ pounds.

Dr. Post remarked that he was present at a meeting of the Medical and Surgical Society, when the late Dr. Swett related a case where he had confounded a solid tumor in the chest, with a collection of fluid in the cavity of the pleura. Dr. Post at that time suggested the value of auscultatory percussion, and subsequently Dr. S. met with another case of the same character, where he arrived at a correct diagnosis, by a recourse to that method of examination.

Dr. FINNELL lastly exhibited the portion of the femur from Dr. O'Rorke's patient, left after the amputation, the end of which was found to be beautifully rounded, and the medullary canal completely occluded.

The society then adjourned.

Correspondence.

BROMIDE OF IODINE AS A TOPICAL APPLICATION IN DIPHTHERIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In the treatment of diphtheria, I believe all sound practitioners are agreed that it is of prime importance to do everything calculated to nourish and sustain the patient, whilst administering such medicines as tend to correct the spasmia, so frequently if not universally recognised as one of its most striking features.

In common with many others, I have relied mainly on the tincture of sesquichloride of iron, for internal administration. Nor has my experience failed to convince me of its excellence. It has the superiority over chlorate of potash, in not disagreeing with the stomach, when properly diluted, and of not producing the exhausting diarrhoea which I have known, occasionally, to follow the use of the salt.

My object in addressing you this note is not to speak of the general medication in diphtheria, so much as to call attention to the fact that, in five cases, I have found great benefit from a topical application of which I have seen no published recommendation.

In the winter of 1859-60, a student of the University

Medical College suffered from an exceedingly severe attack of the disease. There were all the well marked constitutional symptoms, with swelling of the lateral cervical glands, and abundant patches of exudation on the tonsils, uvula, roof of the mouth, and posterior pharyngeal wall. This gentleman was a son of Doctor Webb, of Hempstead, Long Island. As a probably fatal prognosis had been made in the case, the young man's father had come to New York, bringing with him a vial containing a mixture of *Bromide of Iodine*, in mucilage or syrup of gum arabic—two drops of the former to a fluid-ounce of the vehicle. This, he said he had heard, was a good antiseptic, and might prove useful in his son's case, as there was the usual fetid character of the breath. Drachm doses of the medicine were taken internally, at intervals of several hours; and with a camel's hair pencil, it was applied frequently to the patches of exudation.

It certainly acted as a disinfectant; but it was followed by a remarkable change in the appearance of the membranes. Within twenty-four hours, they had, apparently, broken down—disappearing in spots, entirely, and leaving the mucous membrane red and smooth, where the white exudation had formerly existed. Within the next eighteen hours, the fauces and palate were entirely freed from all pellicular matter.*

The next case in which I used it, occurred in a lad of thirteen, who had, two years previously, suffered severely from scarlet fever. The diphtherial exudation was extensive, the constitutional symptoms very grave, and the angina of the most marked type.

To test the remedy in question, I applied it to the left tonsil, which was hypertrophied very considerably, and completely covered with an exudation, having very much the appearance of white chamois skin, soaked in water. In twelve hours, the edges commenced to loosen, and in twelve more, the whole mass was coughed out, leaving a very red and bleeding surface under its former place. This patch measured a line and a half in thickness, and was an inch in length by three quarters of an inch in breadth. Exudation had commenced to form on the uvula, when the application was made to the tonsil. It soon ceased to spread, and was but ephemeral.

In the last case under my care, a girl of thirteen, whom I had attended seven years ago with well marked scarlatina, the exudation involved the tonsils and spread to the uvula after the fourth day. The Bromide of Iodine at once checked the factor of breath, and in twenty-four hours caused a complete disappearance of membrane both from the tonsils and uvula.

I spare the details of two other cases, as they were not of such character as to make a different description necessary.

I submit these facts to the profession, well knowing with what diffidence we should look upon new "discoveries" in the remedial world, and hoping that the true value of Doctor Webb's suggestion may be ascertained in the only proper manner, i.e. by the result of many observations. I should have waited for more than five cases, before presuming to address you; but, as my practice does not furnish me with the great number of patients that some of my medical brethren have encountered, I indulge the hope that their more extended field of observation may enable them to do what I have suggested above.

The topical application that I have employed has consisted of four or five drops of the Bromide, to the fluid ounce of Gum Syrup, well applied to the diphtherial patches, every two hours. There is nothing unpleasant to the taste or smell in the tincture thus prepared, notwithstanding the very disagreeable nature, in both these respects, of the pure liquid. It is well to continue its use, less frequently, until the mucous membrane shall have resumed its normal appearance.

JOHN T. METCALFE, M.D.

Jan. 21, 1861.

* The patient subsequently recovered.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—The fifty-fourth Annual Meeting of the Society will be held in Albany, pursuant to statute, on the 5th of February next.

Delegates will please be punctual to present their credentials, and to enter their names on the Register. Members of the Society and all others are requested to give early notice of any paper which they may have to present.

Officers of County Medical Societies, giving credentials to Delegates, will prevent delay and disappointment, by using the words "duly elected Delegate," etc. A Delegate cannot be *appointed*, the law makes no such provision; neither can an *alternate* or *substitute* be sent. The office is an *elective* one, and must be filled by an election. It would be just as proper to send an "alternate" or "substitute" for Governor or President, as for Delegate. When a vacancy is filled by the resignation or death of a Delegate, the certificate should so specify, and at what time the term of office expires. Permanent members, and Delegates who have occupied seats in the Society, do not need yearly credentials.

The Institution, organized as it is by law, must act in strict conformity to that law. And attention is accordingly drawn to important, though it may appear minor points, which have been frequently overlooked by officers in filling credentials to be presented to the State Society.

S. D. WILLARD, M.D., Secretary.

ALBANY, January 26, 1861.

THE APPLICATION OF THE NITRATE OF SILVER BY INHALATION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—For a number of years I have been applying the nitrate of silver, well triturated with a little white sugar, directly to the larynx and trachea, by the means of a small glass tube, three or four inches long. The powder is placed in the tube, the fore-finger is then placed on one end, the other is passed into the mouth as far as possible without coming in contact with the epiglottis; the mouth is then closed tightly over the tube, the finger is then removed, and at the same moment a strong inhalation or inspiration will draw the powder into the larynx and trachea, where it is absorbed by the mucous membrane, without any unpleasant sensations. By this means the unpleasantness of having the probang thrust into the larynx is avoided, and the benefits received are the same, but more satisfactory. After the first application, the patient can repeat the same without assistance.

D. F. FETTER, M.D.

151 WEST-42D STREET, NEW YORK.

THE CONICAL TREPHINE.

[To the Editor of the AMERICAN MEDICAL TIMES.]

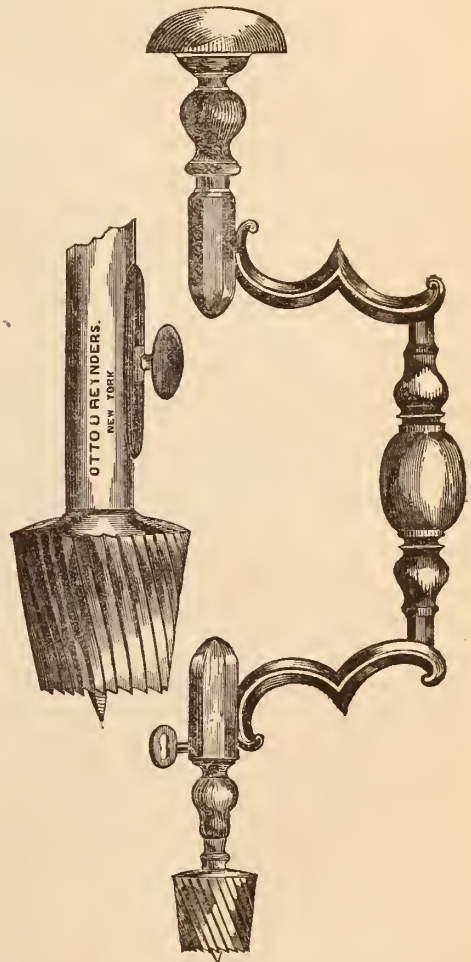
SIR:—We noticed an article in the Number of your esteemed Journal for January 5, giving a description of a new trephine, invented by Dr. Galt, of Virginia. There was also reported a successful operation with the instrument by Dr. L. A. SAYRE, with the remark, "That this was the first time this instrument had ever been used upon the living subject."

Now, sir, in referring to some of the authorities on surgical instruments, we find an engraving of a conical trephine, with lateral cutting teeth, in Heister's *General System of Surgery*, London edition, 1743, Plate 15, fig. 3: also in Blasius, *Chirurgical Plates*, 2d edition, Berlin, 1844, Plate 20. In the *Armamentarium Chirurgicum* of Dr. Joh. Scultetus, mention is also made of a conical trephine, which Blasius describes as from Fabricius ab Aquapendente. We have also had in our store, for six or eight years, a complete set of trephining instruments, bought at second-hand, by Dr. P., of this city, twenty years ago, and left with us to

be disposed of. This set of instruments has the appearance of having been manufactured fifty years ago, and contains three trephines of different sizes, which are not only conical and have lateral cutting teeth, but these teeth are inclined exactly as in the trephine introduced by Dr. Galt. Another trephine, manufactured by us, some six years ago, on the same principle, but not *quite* so conical as the one under discussion, we presented a few days ago to Dr. Sayre, who experimented with it on an old skull, and it was found that the instrument answered perfectly well the desired object, viz. it did not penetrate at all after the perforation of the cranial walls; the efforts to force the instrument further, resulted in breaking the strong cross handle.

In communicating these facts, we do not wish to detract in any sense from the merits of Dr. Galt, who never saw the instruments in our possession. On the contrary, we think that both the profession and the instrument-makers are under great obligations to Dr. Galt, for re-inventing a long-lost and very useful instrument.

The accompanying wood-cut, about half-size, shows the trephine in our possession, fastened in a brace as used for-



merly, and even now generally, in France and Germany, etc., and as represented in Heister: the other trephine (natural size) is the same as now made by us.

We should be happy to exhibit the original antique instrument to the Profession, and will have those useful trephines always on hand for the future.

Respectfully yours,

OTTO & REYNDERS.

Manufacturers of Surgical Instruments.

NEW YORK, 58 Chatham Street.

FOREIGN CORRESPONDENCE.

EDINBURGH.

Dec. 15th, 1860.

TO-DAY I saw two well-marked cases of chronic pleurisy which had resulted in effusion into the chest. One was a man in the prime of life. On inspection, the left side was evidently the smaller, and rose and fell far more than the right. On the left, vocal fremitus normal; on the right, present only just below the clavicle. Auscultation on the left revealed exaggerated healthy murmur, and heart pushed to the left; on the right, no sound at all, except just below the sterno-clavicular articulation, before and behind. Percussion on the left slightly more resonant than normal; on the right, flat and resistant, as Dr. Begbie remarked, as a stone wall. In fact, by percussing alternately upon the chest and the stone-wall of the house, we produced exactly the same sound. The other case was that of a young girl. In her case, the effusion had taken place upon the left side, and had pushed the heart over to the right side. Paracentesis thoracis will be performed in each of these cases, in a few days.

Dr. Begbie remarked that he did not dread the entrance of air into the cavity of the pleura as much as some did, and seemed to regard it as a theoretical fear indulged in by those who had not frequently performed the operation. He uses no precautions against the entrance of air, careless whether it does or does not obtain access. There is at present in Dr. B.'s wards a lad who was admitted some time ago with well marked Typhoid fever. The disease ran its usual course. After a somewhat prolonged interval convalescence was established. I saw the case repeatedly, and there is no doubt it was Typhoid fever. He lay in a ward crowded with Typhus fever patients. In a few days after he had recovered sufficiently to move about, he was taken with Typhus, presented its characteristic measly eruption, and is now delirious.

It may be well for me to just jot down the characteristic symptoms of the four kinds of fever prevalent here, according to Prof. Bennett. He classes them as, 1st. Febricula; 2d. Relapsing; 3d. Typhoid; 4th. Typhus. The Febriculae having for their cause excess, exposure, fatigue, etc., etc., and terminating in from two to seven days. The Relapsing fever arising from a specific cause, and terminating in apparent convalescence in from five to eight days; in a week a relapse.

Typhoid, arising from a specific cause, attended by the usual signs of fever, abdominal tenderness, and diarrhoea, and terminating on the thirtieth day. Typhus, arising from a specific cause, the usual symptoms of fever, and terminating by the twenty-first day.

Dr. Bennett attaches but very little importance to the so-called characteristic eruptions, and says that, notwithstanding all that has been said as to distinguishing between Typhoid and Typhus by the eruption or abdominal symptoms, before the twenty-first day, he believes it to be impossible. In his clinical lecture of December 14, as well as in his work on the theory and practice of medicine, he said that at the onset we are unable to say what any given case will turn out to be. If the fever ceases on the seventh day, it may be febricula or relapsing fever. The latter can be known only by the return of the disease. Should the fever continue beyond the seventh, then we have to do with typhus or typhoid. The diagnosis between these last two is for the most part retrospective, and can only be determined in the advanced stages. The treatment he advocates is very simple, consisting merely of salines at the outset, careful and systematic feeding throughout the whole course of the disease, and wine and stimulants the moment the pulse begins to flag. However rapid the pulse, high the fever, and great the disgust at food, still nourishment must be got down. Beef tea is the best.

Dec. 18, 1860.—A case of fever in the wards, now in the twentieth day, exhibits great prostration, which Prof. B. has no hesitation in attributing to want of nourishment.

Wine and careful feeding with strong beef tea were ordered. Dr. Stokes, of Dublin, who desired that there might be put over his grave the inscription, "He fed fevers," was mentioned with high commendation. It was remarked that no one nowadays pretended that fevers could be stopped. That was given up long ago. All that we can do is to support the patient and enable the system to throw off the morbid poison. Our treatment of disease must be founded upon its physiology and pathology. All poisons tend to elimination sooner or later, and we must support the body while this process is going on. The headache of fever is greatly alleviated by cold applications to the head. They can be but seldom used in a hospital, because the cloth moistened in cold water and applied to the warm head very soon becomes nothing more nor less than a hot fomentation. The best method of applying cold is the following. Pour cold water upon the head, inclined over the side of the bed, above a basin. Ordinary precautions may prevent wetting the dress or bed-clothes. Another good way is to allow the long hair of females to hang into a basin of cold water. The capillary attraction of the hair will produce the desired effect. Why is not the India rubber cap made for the purpose and filled with cold water or ice better than any other contrivance? In regard to the diarrhoea of typhoid fever, Prof. Bennett remarked that he rather doubted the propriety of stopping it, but that there appeared to be no objection to giving a little chalk mixture to check it. Be very careful about purgatives in fevers; nothing can be more dangerous. You may by their use engender enteric disease. There is no call for their use. Nothing brings down the strength so much as purgation. This holds in all diseases. I am inclined to think that occasionally we can check a fever at the onset by an emetic. As a rule, whenever called in very early in fever, I always order an emetic. I cannot speak upon this point with any certainty; it does not admit of demonstration.

Medical News.

MARRIAGE.

BEECH—PERRY—In Clarkson, N. Y., on Tuesday, January 15th, at the residence of the bride's father, by the Rev. Joseph McNulty, J. H. Beech, M.D., of Coldwater, Mich., to Miss Mary J., daughter of Mr. John Perry.

THE New York Academy of Medicine has commenced a new presidential term, by placing, in the most unqualified manner, its seal of disapprobation upon the newspaper reports of its proceedings. At a late meeting, the following resolutions were passed with but one dissenting voice:

Whereas, Section 3 of Article 1 of the Code of Ethics American Medical Association, adopted by this Academy, declares it to be "derogatory to the dignity of the profession" to publish cases and operations in the daily prints, *or to suffer such publications to be made*, and that such proceedings "are the ordinary practice of empirics and highly reprehensible in a regular physician," therefore,

Resolved, That the practice heretofore in vogue in this Academy of permitting reporters of secular papers to attend its meetings, take notes of its proceedings, and publish them, is in violation of said code, and is hereby prohibited in future.

Resolved, That it is equally in violation of said code for Fellows of the Academy to publish, or cause to be published, any transactions thereof, in any other than strictly medical journals.

Resolved, That nothing in the aforesaid resolutions shall be so construed as to preclude the Academy, at its discretion, from publishing in the newspapers any of its discussions or of its acts relating to hygiene or to public health.

ANNIVERSARY OF THE NEW YORK WOMAN'S HOSPITAL.—The Sixth Annual Anniversary of the New York Woman's Hospital was held at the hospital, No. 83 Madison Avenue, on Saturday last, at twelve o'clock, JAMES W. BECKMAN presiding. The Treasurer's Report shows the receipts of the hospital for the year just past to have been \$8,511 36, its disbursements \$8,958 08, and the unpaid bills \$726 88. It appears that the limited pecuniary embarrassments of

the institution, compared with those under which it has labored heretofore, is mainly due to the increased number of paying patients, to the increased price of their board, to the Treasurer's systematic collection of the board dues in advance, and to a legacy of \$500 left by the Hon. BENJAMIN F. BUTLER to the State Woman's Hospital, and loaned by the Board of Governors to the New York Woman's Hospital. During the past year 130 patients have been admitted, of whom 99 have been discharged, 41 permanently relieved, 52 perfectly cured, 2 deceased, and 4 incurable. The rest are still in the hospital. There are at present in the hospital 32 patients—17 paying and 15 free.

ACADEMY OF MEDICINE.—Dr. Peter Vanburen was recently elected Chairman of the Section on Materia Medica. The Section meets on the second Friday evening of each month.

HEALTH OF LONDON.—There were one thousand two hundred and sixty-nine deaths in London during the week ending December 22d. During the same week were registered the births of 877 boys and 903 girls.—*Lancet*.

THE *Virginia Medical Journal*, one of the most valuable of our exchanges, disappeared from our exchange list nearly two years ago, since which we have had no definite knowledge of the changes which it had undergone until the receipt of the *Maryland and Virginia Medical Journal*, No. 1, Vol. XIV., January, 1861. We now learn that this journal is published simultaneously at Richmond and Baltimore, and is edited by Drs. J. B. McCaw, W. C. VAN BIBBER, and WILLIAM A. HAMMOND, with thirteen co-editors, among whom we notice the following familiar names—N. R. SMITH, CHEW, JOYNES, OTIS, GIBSON, DONALDSON, PETICOLAS, BUCKLER.

At the banquet given to M. RICORD by his *confrères* on Thursday, December 20th, there were present about two hundred members of the medical profession, including representatives from Great Britain, Germany, Sweden, Russia, Greece, Italy, the United States, and South American Republics. Strange to say, none of the Professors of the Faculty of Medicine were present, with the exception of "M. TROUSSEAU, who, following the impulses of his manly and independent character, seemed by his presence to protest against the unjust neglect of his colleagues."

CÆSAREAN OPERATION.—In the *Nashville Journal of Medicine and Surgery*, Drs. Stewart and Kyle, of Florence, Alabama, report a successful case of the Cæsarean operation.

THE BEATING OF THE FŒTAL HEART.

I FONDLED by the bed-side,
I walk'd about the room;
The stillness of my patient
Fill'd my mind with deepest gloom;
The Os was firm and rigid,
Not a fibre of it stirr'd;
And the beating of my own heart
Was all the sound I heard.

I sat me by her right side,
I watch'd her pale, pale cheek;
But as it grew still paler,
I did not dare to speak
I watch'd her for a movement,
Then ask'd her for one word;
But the beating of my own heart
Was all the sound I heard.

It came not—no—it came not,
The night was passing on,

I knew not but my patient
And her Fœtus, might be gone,
To the precept of my teacher
A happy thought refer'd—
Where he told me, most profoundly,
What sounds were often heard.

The Stethoscope,—then gently
I press'd it to her side,
As though she'd been an angel,
Or were to be my bride,
I press'd it nearer—nearer—nearer;
A sound!—'twas clearer—clearer—
clearer;
I did not speak—no—I did not speak
a word,
But the beating of the Fœtal Heart
was the joyous sound I heard.

Med. Times and Gaz.

A REAL IMPROVEMENT.—The sterling *Irish Journal*, the *Dublin Medical Press*, commences its twenty-first year of publication with cut edges, a novelty in British journalism. It says, "one of the inconveniences of our British periodicals is the necessity of cutting them after their receipt, and before any of the contents can be perused, and the medical man who is handed his 'Press' when stepping into his carriage, or on any occasion in which it might

be inconvenient to obtain a book-knife, is tempted either to pass over some of the articles without reading them, or to mutilate the journal in attempting to open it, in such a manner as frequently to render the number unfit for binding afterwards. The advantage of cutting the journal before sending it out is suggested to us by the constant examination of the American Medical publications, among which this principle is universally adopted, and which, in the hurry of business, we are sometimes tempted to take up in preference to the uncut paper which lies beside it."

COMMUNICATIONS have been received from:—

Alabama—Dr. E. H. SHOLL. *Canada*—Drs. L. D. RINDELL, A. M. ROSEBROUGH. *Illinois*—Drs. J. BRELSFORD, H. HOLCOMB. *Indiana*—Drs. J. LAMB, H. DUNCAN, S. REID, R. W. PIERCE. *Iowa*—Drs. P. M. McLAREN, H. B. TUTTLE, J. COLE. *Maine*—Dr. G. W. MARTIN. *Massachusetts*—Drs. W. M. TROW, A. J. GRAY, E. W. CARPENTER, M. SPAULDING, J. BLODGETT, WELLINGTON. *Minnesota*—Dr. W. B. SIMONTON. *Mississippi*—Dr. J. P. DEBORGHE. *New Hampshire*—Drs. E. H. SANBORN, S. BROWN, S. G. DEARBORN. *New York*—Drs. L. P. GREENWOOD, W. P. BELL, S. S. CARTWRIGHT, A. M. VEDDER, E. M. SOMERS, D. HOPPER, E. WEBB, H. A. CARLINGTON, C. F. WARNER, F. B. PARMELEE, W. W. MURPHY, M. W. TOWNSEND, H. W. LEONARD, J. C. PATTERSON. *Pennsylvania*—Drs. S. SCHREIVER, J. BREITENBACH. *Ohio*—Drs. J. MACREADY, R. HILLS. *Vermont*—Drs. E. HAZEN, L. D. ROSS, A. T. WOODWARD. *Virginia*—Drs. W. M. TURNER, E. L. BAKER. *South Carolina*—Dr. J. J. CHISHOLM. *Connecticut*—Dr. W. W. TERRY. *Wisconsin*—Dr. A. YOUNG.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK,

From the 20th day of January, 1861, to the 26th day of January, 1861.

Deaths.—Men, 76; women, 88; boys, 127; girls, 112—total, 403. Adults, 154; children, 239; males, 233; females, 200; colored, 1. Infants under two years of age, 153. Among the causes of death we notice:—Infantile convulsions, 81; croup, 8; diphtheria, 15; scarlet fever, 31; typhus and typhoid fevers, 4; consumption, 52; small-pox, 10; dropsy of head, 21; infantile marasmus, 15; inflammation of brain, 9; of lungs, 40; erysipelas, 5; bronchitis, 7; congestion of brain, 3; of lungs, 9; whooping cough, 3; measles, 3; rheumatism, 2.

Jan. 1861.	Barometer.		Temperature.			Difference of dry and wet bulb. Therm.		Wind.	Mean amount of cloud.	Rain.
	Mean height.	Daily range.	Mean.	Min.	Max.	Mean.	Max.			
	In.	In.	°	°	°	°	°		0 to 10	In.
20th	29.81	.21	35	28	40	5	8	S.W.	6	
21th	30.10	.30	27	22	34	4.5	6.5	N.W.	.05	
22th	30.40	.31	22	16	28	3.5	5.5	"	.03	
23th	30.54	.24	21	14	28	3.3	5	N.	5	
24th	30.20	.30	33	25	40	1	1	N.E.	10	
25th	29.90	.34	31	26	37	2	3	"	10	} 13
26th	30.15	.30	27	24	31	1.5	2	"	10	

REMARKS.—20th. Wind fresh P.M.; cloudy P.M. 21st. Fresh wind P.M. 22nd. Fresh breeze all day. 23rd. Wind fresh A.M., cloudy P.M. 24th. Snow storm commenced at 4 A.M., rain and thaw at night. 26th. Snow P.M.

MEDICAL DIARY OF THE WEEK.

Monday,	{	NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
Feb. 4.	{	EYE INFIRMARY, Diseases of Eye, 12 M.
Tuesday,	{	NEW YORK HOSPITAL, Dr. Buck, half-past 1 P.M.
Feb. 5.	{	EYE INFIRMARY, Diseases of Ear, 12 M.
	{	OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
	{	BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
	{	EYE INFIRMARY, Operations, 12 M.
Wednesday,	{	NEW YORK HOSPITAL, Dr. Cock, half-past 1 P.M.
Feb. 6.	{	BELLEVUE HOSPITAL, Dr. Mott, half-past 1 P.M.
	{	ACADEMY OF MEDICINE, 7½ P.M.
Thursday,	{	OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
Feb. 7.	{	NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
	{	BELLEVUE HOSPITAL, Dr. Elliot, half-past 1 P.M.
Friday,	{	NEW YORK HOSPITAL, Dr. Buck, half-past 1 P.M.
Feb. 8.	{	BELLEVUE HOSPITAL, Dr. Church, half-past 1 P.M.
	{	EYE INFIRMARY, Diseases of Eye, 12 M.
	{	BELLEVUE HOSP., Dr. Wood, half-past 1 P.M.
Saturday,	{	OPHTHALMIC HOSPITAL, Drs. Stephenson & Garrish, 1 P.M.
Feb. 9.	{	NEW YORK HOSPITAL, Dr. Cock, half-past 1 P.M.
	{	EMIGRANTS' HOSP., WARD'S ISLAND, Dr. Carnochan, 3 P.M.
	{	EYE INFIRMARY, Diseases of Ear, 12 M.

SPECIAL NOTICES.

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Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE II.

TO-DAY, gentlemen, we shall take up the study of the fifth pair, or the great Trifacial. This is a nerve of peculiar interest, not only on account of its extensive distribution and the strongly marked character of its function, but also on account of the strong resemblance which exists between it and the spinal nerves. For the fifth pair originates, like the spinal nerves, from a double root: sensitive and motor. We find that its sensitive root, like those of the spinal nerves, is provided with a ganglion; and we find also that its two roots, while they are entirely distinct at their origins, become mingled to a certain extent after they have left the cavity of the cranium, and are distributed both to the integument and to certain of the muscles of the face.

In the first place, let us examine the principal points in the anatomy of this nerve; after which we will pass to a consideration of the different functions which belong to it. The fifth pair originates, as I have said, by two distinct roots, which emerge from the substance of the brain on the lateral surface of the pons Varolii. This is of course the apparent, but not the real origin of the nerve. For if we trace the fibres downward, we find that they come from a much deeper situation, and that the fibres of the larger root can be traced to the continuation of the sensitive filaments of the spinal cord, and the smaller root to that of its motor fibres. The two roots then pass forward, side by side, until they reach the superior surface of the inner extremity of the petrous portion of the temporal bone, which they cross at the situation which I indicate here. The petrous portion of the temporal bone, as you will remember, is in the form of a triangular pyramid, one of its sides looking downward, another backward, and the third forward and upward. It is upon the internal extremity of this anterior and upper surface of the pyramid, that the nerve rests. It is just at this spot that we find upon it a very remarkable formation which indicates more clearly than any other its analogy to the spinal nerves; that is the great ganglion which is situated in the course of its sensitive root. If you look at the fifth pair in this preparation, in which the dura mater has been dissected away from above, you will see a wide collection of grey matter stretching from one side of the nerve to the other. It has a crescentic form, and is therefore called the crescentic ganglion; or more frequently, from Casserio, an Italian anatomist, who first described it, the *Casserian* ganglion. The situation of the ganglion you will see also in this fresh preparation. Looking from above downward, you see the large root entering the grey matter of the ganglion, where its fibres become intermingled with its substance; but if we turn the ganglion over and examine its under surface, we shall then see that the smaller or motor root passes underneath it, but has no other connexion with the ganglion than that of mere contiguity.

The next point in the anatomy of the fifth pair of nerves is that after passing the situation of the Casserian ganglion it separates into three great divisions; one of these goes to the orbit of the eye and the integument of the superior part of the face; the second passes through the superior maxillary bone, and supplies the middle part of the face; while the third is distributed to certain muscles in the lower part of the face and to the integument and mucous membranes

of the same region. These three distinct divisions are known as the *ophthalmic*, the *superior maxillary*, and the *inferior maxillary*. The ophthalmic division of the fifth pair runs from behind forward, enters the orbit of the eye by the sphenoidal fissure, in company with the motor nerves which I described yesterday. Having arrived at the inner and anterior part of the orbit, it sends off several branches; one of which, the nasal branch, is distributed to the mucous membrane of the middle and lower part of the nasal passages. The other branches are distributed in part within the cavities of the orbit, to the lachrymal gland, the lachrymal ducts, and to the mucous surface of the conjunctiva. The ophthalmic division then emerges from the cavity of the orbit, by the supra-orbital foramen (which, as in this skull, is sometimes nothing more than a mere notch in the bone), and spreads out into a brush of minute filaments, to be distributed to the integument of the forehead and sides of the head as far back as the vertex. The superior maxillary division of the nerve runs also from behind forward, but very soon passes out of the cranium by the foramen rotundum (into which the end of the probe is now inserted). From this point, it passes into the sphenomaxillary fossa, and thence enters a canal in the floor of the orbit. During its passage through this canal it sends abundant filaments to different parts of the upper jaw, and particularly to the roots of the teeth. After supplying the teeth in this manner, the nerve emerges from the infra-orbital foramen, and, passing out upon the middle of the face, breaks up into a brush of filaments, which are distributed to the skin;—supplying in this way the middle and most sensitive region of the face. Finally, we have the inferior division of the fifth pair, or the inferior maxillary. This division passes almost directly from above downward, through the foramen ovale, in the base of the skull, and then continuing its course in a downward direction, enters the inferior dental canal, in the body of the inferior maxillary bone. While passing through this canal it gives nerves to the teeth of the lower jaw, and finally, emerging from the anterior extremity of the bone, through the mental foramen, it supplies the mucous membrane of the lower lip and the skin of the lower part of the face. These three nerves, therefore, the three divisions of the fifth pair, supply the integument of the superior, middle, and inferior portions of the face. There are, however, two peculiarities in the anatomy of the inferior division, which I have yet to notice; one is, that, as it is passing from above downward, in order to engage itself in the inferior dental canal, it gives off a very important nerve, which goes by the name of the *lingual branch of the fifth pair*. This nerve is important, in consequence of the special character of its sensibility; for it not only possesses the property of general sensibility, like the other branches of the fifth pair, but also the power of appreciating the impression of sapid substances. I shall, however, return to this point in a few moments. The other peculiarity is that, beside the lingual branch just mentioned, there are four or five others, which leave the inferior division of the fifth pair immediately after its emergence from the foramen ovale, and which are distributed to the muscles of mastication, or those which move the lower jaw. The nerve, from this circumstance, sometimes goes by the name of the *masticator nerve*.

In this preparation you have all these branches exposed, with the exception of the masticatory filaments, which have been necessarily removed. You see the Casserian ganglion with its three principal branches, and also the infra-orbital and mental nerves where they emerge from their respective foramina, to be distributed to the sensitive surfaces in their vicinity.

Now, with regard to the functions of the fifth pair, beyond question the most important nerve distributed to the face.

In the first place, this is an excessively sensitive nerve, more so than any other in the body. If we irritate the branches of the first and second divisions of the fifth pair, we find that a painful sensation is produced, but no convul-

sive action; for the reason that the filaments of these nerves are not distributed to any muscles. The irritation of these filaments also appears to excite more acute pain than that of any other nerve in the body.

You will remember that the fifth pair is also a motor nerve; for the filaments of the small root, which originate in company with the others, are distributed to the muscles of the lower jaw, and supply, therefore, the motive power to the inferior and deep-seated regions of the face.

Now, all these facts have been discovered by direct experiment. I have said that the fifth pair is, par excellence, a sensitive nerve. The consequence of this is, that if the nerve be divided in the interior of the cranium, we find that this operation destroys sensibility in all parts of the face which are supplied by the nerve. This operation I will now do upon this cat, with the instrument which you see here. The general arrangement of parts is the same in these animals as in the human subject. All that is necessary to do, therefore, in order to divide the nerve within the cranium, is to introduce the instrument through the squamous portion of the temporal bone, quite low down on the lateral surface of the head, and just above the posterior extremity of the zygomatic arch, so that, on entering the cranium, the point of the instrument may rest upon the upper and anterior surface of the petrous portion. The instrument should be pushed almost directly inward until it strikes the edge of the posterior clinoid process. Then its cutting edge is to be turned downward, and if it have reached the right point, it will then cut off the fifth pair, through the substance of the Casserian ganglion. This is a very dangerous operation, for you see that we must work for the most part in the dark, and are guided by the bony prominences felt by the instrument in its passage. Frequently, also, we find that the instrument, going a little too far forward, opens the cavernous sinus, and thus causes a fatal hemorrhage. Then again, by passing too far inward it may wound the internal carotid artery, and by going too far backward, may open the petrosal sinuses, or wound the tuber annulare. But if we avoid all these dangers and simply cut the fifth pair itself, then the animal recovers, but with a loss of sensibility on the corresponding side of the face.

I will now introduce the instrument in this animal in the manner in which I have described, and if I succeed in striking the right point you will in all probability find that, notwithstanding the etherized condition of the animal, at the time that the point of the instrument passes through the fibres of the fifth nerve, a certain degree of pain will be evinced, by involuntary cries. This shows the extreme sensibility of this nerve, since it is the only one in the body which, when operated upon under etherization, will usually cause the animal to cry out. These cries are very similar to the moaning which we sometimes hear from a patient, when imperfectly etherized, in the course of a surgical operation. I now introduce the instrument, on the right side of the head, and endeavor to make it pass through the cranial bones just at the situation of a little depression which exists immediately above the posterior extremity of the zygomatic arch. The instrument is now in the cranial cavity—I can feel it sliding along the superior surface of the petrous portion of the temporal bone, and now, reaching the edge of the posterior clinoid process, I turn the edge downward, and move it to and fro in such a way as to cut off the fibres of the nerve. You observe that there is some hemorrhage from the external wound. This hemorrhage may come from the internal carotid artery, or from some of the more superficial vessels. In the former case it will probably prove fatal; and in the other it will soon cease, and produce no serious result. The cries which you hear from the animal are due, as I have said, to the extreme irritability of the fifth pair. We can, however, only ascertain when the operation has been successful by patiently waiting the result. Not unfrequently, after this operation, in consequence of the hemorrhage which takes place at the base of the brain, the animal remains in

a partly comatose condition for a few hours, and then gradually recovers.

There is one appearance which I already see in this animal, which shows that the fifth pair has actually been divided. You can see that the right eye has become very much more prominent than the left. This is one of the consequences of the division of this nerve, though the exact cause or mechanism of the action is not very well understood. By now examining the sensibility of the two sides of the face we may demonstrate still more satisfactorily that the fifth nerve has been divided. You will observe that on the left side when the cornea is touched with the point of a needle, the eye is immediately closed, but if the same thing is done upon the right side, the conjunctiva exhibits no sensibility, and the eye is not closed. I will now touch with the point of a needle the mucous membrane of the right nostril, and you observe that the animal evidently experiences pain, while on the right side this same irritation produces no sensation whatever. Upon the right side, therefore, the sensibility of the face is entirely destroyed. We can prick, cut, or pinch the skin, or we can pass a needle entirely through the lip, as you see, without eliciting any evidence of pain.

The most palpable effect, then, of division of this nerve is a loss of sensibility on the corresponding side of the face. Now, this loss of sensibility is complete, and remains for a considerable time. Here is a cat upon which I did the operation a fortnight ago. At that time the power of sensation was completely abolished by division of the nerve, and, I presume, is still entirely absent. The operation was performed on the right side. On the left side the cornea you observe is very sensitive. I cannot even get the point of the instrument between the lids, their closure is so prompt and spasmodic; but on the opposite side I can apply the instrument without any resistance whatever. I presume the insensibility of the mucous membrane of the nostril is the same. I now touch the left or uninjured side, and you see the effect which is produced; but when I touch the right or operated side, you see there is no resistance. In this way is demonstrated the important fact that the fifth pair is essentially a sensitive nerve in its function, and that its division destroys the sensibility of the corresponding parts.

We also find, in studying this nerve, that the morbid affections to which it is subject, demonstrate the same thing. The most severe and troublesome form of neuralgia, which is known by the expressive name of *tic douloureux*, is located in the three principal divisions of this nerve. We find, accordingly, the pain in *tic douloureux*, sometimes running up the forehead along the track of the supra-orbital nerve, sometimes in the middle or the inferior region of the face—and sometimes in all three at a time. More frequently, however, it is confined to a single division of the nerve; and I believe that it is almost invariably confined to one side of the face.

There are several other effects, gentlemen, besides those already mentioned, which are produced by division of this nerve, in consequence of the peculiar properties possessed by some of its different branches. One of these peculiarities is, that the individual loses the sense of taste in the corresponding portion of the tongue. It has been demonstrated by various experimenters, that the sensibility of taste in the anterior two thirds of the tongue resides in the lingual branch of the fifth pair: and that if this branch be divided, and any substance having a bitter or sour taste, be then placed upon the anterior part of the tongue, on the same side, its sapid qualities are not perceived by the mucous membrane. Now, in cutting off the fifth pair within the cranium, we necessarily cut off at the same time the lingual branch which supplies taste to the anterior two-thirds of the tongue, and a partial loss of this sense is the result. Another very important effect of division of the fifth pair is a paralysis of the masticatory muscles on the corresponding side. You will remember that the inferior maxillary division of the fifth pair sends branches to the

muscles moving the inferior maxilla, viz. the great temporal, the masseter, and the internal and external pterygoids. In some animals, the act of mastication is comparatively unimportant; as in the dog, who merely bruises his food by a few strokes of the teeth, and then seems to swallow it almost whole. In other instances, on the contrary, as the graminivorous and ruminating animals, it is necessary, in order that the process be accomplished properly, that all the masticatory muscles be in their natural condition; for when the lower jaw is heavy, as in the horse and ox, or where the food is of such a nature as to require powerful movements, these movements will be very much interfered with by paralysis of the muscles on one side. This is particularly the case with cats, and all the species belonging to that family. Although both cats and dogs feed on animal food, yet they differ very much in their habits of mastication. If you watch a cat and a dog eating the same kind of meat, you will fully appreciate what I have just said. The dog will gulp down his food with but little preparation, while the cat will never swallow any of it until it is thoroughly masticated. In the cat, accordingly, after division of the fifth pair, mastication is very seriously interfered with, and the animal requires to have her food cut in small pieces, before she can swallow it.

There is still another and very important consequence, which results from division of this nerve, of a totally different character from those which I have yet mentioned; that is, an *inflammation*, and very frequently a *destruction*, of the tissues of the eyeball. Within thirty-six hours after the operation, we frequently find that the conjunctiva becomes reddened, which condition rapidly increases, and is very soon accompanied by a sub-conjunctival oedema. At the end of four or five days, there is usually a commencing ulceration of the cornea. This goes on increasing, until the coats of the eye ball become perforated, and its contents evacuated. Now in this animal, where the division of the fifth pair was performed about a fortnight ago, you can see this peculiar inflammation of the eyeball going on. Although having all the external signs of inflammation, and also affecting the deep structures of the eyeball, it is nevertheless an entirely painless affection. You see the cornea on the right side is more or less ulcerated, and in the course of a very short period, probably less than twenty-four hours from this time, there will be evacuation of the contents of the eyeball. Sometimes this inflammation, after once reaching its height, again recedes and subsides without any other effect: but when it has gone so far as this, evacuation of the contents of the eye is generally the result. In this second animal, the operation was done three and a half months ago. Immediately afterwards a slight conjunctivitis showed itself, which subsided after a few days: then, after a week or two longer, the eye again became inflamed, and the affection went through its regular stages. After perforation of the cornea, and evacuation of the anterior chamber, prolapse of the iris took place through the perforation. Afterwards the inflammation gradually subsided, the iris withdrew within the interior of the eyeball, and the ulceration of the cornea healed over. The animal is now, as you see, left in a very much better condition than would have been supposed possible before. The pupil is somewhat dilated and irregular in form, the iris at its inner edge adherent to the cornea, and the cornea itself partly covered with a white and opaque cicatrix.

Lastly, gentlemen, I will call your attention to the fact, that after division of this nerve its two separated parts will sometimes re-unite. We are too much in the habit of supposing that when a nerve is divided its function is permanently destroyed; but a nerve may unite just the same as a divided muscle may grow together again, only union in the former case is comparatively slow. That I have seen to be the case with the motor branch of the fifth. In the animal which you have just seen, immediately after the operation, there were all the symptoms which usually follow complete division of the fifth pair, viz. loss of sensation on the corresponding side of the face, and loss of power over the mus-

cles of mastication. During the last three or four weeks, however, I have noticed that both the sensibility and the muscular power have been gradually returning. As I touch the cornea of the right eye, you see that there is evident sensibility in that part, though still considerably less than on the opposite side. The power of motion in the masticatory muscles of the right side, which was at first entirely lost, is now also rapidly returning. By placing the fingers on the side of the cheek while the animal is feeding, it is very easy to ascertain that the masseter on the right side, though somewhat emaciated from disuse, still contracts very distinctly whenever the lower jaw takes part in the masticatory movements. The fifth pair, accordingly, supplies general sensibility to the integument and mucous membrane of the face, and, by its motor filaments, presides over the movements of mastication.

Original Communications.

PATHOLOGY OF TETANUS.

By W. HANNA THOMSON, M.D.

[Concluded from page 77.]

THERE is but little doubt that, were we not sure that hydrophobia was the result of a poisoned wound, we would, by the irritative theory of tetanus, be inevitably led to ascribe the symptoms of rabies also to this mysterious but convenient "irritation;" but the one preceding fact of a virus introduced, does away with all difficulty towards seeing in the strange nervous symptoms, not an irritation merely, but the action of a blood poison. The well known experiments of Magendie and Breschet prove that hydrophobia can be as certainly communicated by injection of the blood of the rabid animal as by inoculation of saliva, and Hertwig (Hufeland's Journal, 1828) "proved by his many excellent experiments, that not only portions of the salivary glands laid on a wounded surface, but the blood itself, venous and arterial, are capable of communicating the infection."* But besides the fact we have of a state presenting the strongest analogies to the essential features of tetanus, produced by an undoubted toxineuritis, we can adduce a still nearer approximation to actual demonstration of the hematic pathology of this disease. We can produce actual tetanus, or at least something very much like tetanus, at will, by charging the circulation with a ready-made poison, in the case of the strychnine group, which in some of its forms, as *upas tieuté*, may be of very small quantity, and yet suffice to destroy life. And here again we do not mean to imply that the supposed poison in tetanus is strychnine, but only to justify the inference, that as all the phenomena of reflex excitability and cramp characterizing true tetanus can be produced by a poison, it is more natural to conclude that these same symptoms in pathological tetanus are also due to a poison, than that they are owing to a curious something taking place at the tip of a fibril, which has been scratched perhaps, which, transmitted to the spinal cord, causes a tremendous tempest from which few escape with life.

On the other hand, to the facts adduced in proof of the irritative theory of tetanic spasms being caused in decapitated animals by irritating a nervous cord, it may be replied, that all which this shows is, that reflex contractions may be caused by irritation, in low vital states. But this is not pathological tetanus, only one of its symptoms, and which it has in common with many other diseases. When this mechanical irritation ceases, the contraction ceases; but it is strangely the reverse with tetanus, for not one in a hundred, nay in a thousand, gets rid of the tetanus by surrendering the communication with the local irritation, the

disease continuing as if no local irritation had ever occurred. This distinction is very instructive, and its bearings are still further developed in the mode of recovery. Tetanus does not go suddenly off as a battery, which, once discharged, reverts into its original quiet, but the tetanic state hangs on for weeks and even months. Now if we accept the theory that the whole trouble has been the result of a process going on in the blood, the tedious recovery of the nervous system becomes readily intelligible, for it can do so only by a decline in the generating process and elimination of its products, a course necessarily involving time.

But it may be objected, there are pathological changes of frequent occurrence in the nerves of irritated parts, such as inflammation, reddening, softening, and varicose swellings of the nervous cords, which can be traced from the wound sometimes all the way to the cord itself; and further, we have well authenticated cases of the disease being arrested by section of these irritated nerves. To this it may be answered that local nervous irritation is not necessarily excluded by the hematic theory; but on the contrary, if the wound is the generating nidus of a poison, it is readily conceivable that the nerves of the part should be peculiarly affected, just as nerves may be locally tetanized and inflamed by the topical application of strychnine. "Strychnine," says Stilling, "applied to any point of the spinal cord, operates upon the entire spinal cord and brain, provided that these organs have preserved their connexion with the part moistened by the poison." Then, too, in hydrophobia we have exactly similar observations of irritated nerves, while it is important to bear in mind that while hydrophobia is a general and hematic disease, it also has its local origin, and its earliest symptoms are local pain and irritation beginning in the wound. Besides it will not do for the "irritation" pathologists to insist too strongly on these local nervous inflammations in tetanus, for many cases occur in which they do not exist at all. We think also that too much by a great deal has been made of the section of irritated nerves arresting tetanus, and we cannot help suspecting that the theory of irritation has given origin to the statement quite as much as the cases of its occurrence; for the very fact that almost all the writers who speak of it copy each the same familiar case of the midshipman whose posterior tibial nerve was cut by Murray, in 1832, and then say, "similar observations are recorded by others," is evidence that such facts are yet too rare to prove a principle, especially in the Protean deceptions of nervous symptoms.

But on the other hand, the irritative theory may be questioned with respect to its own shortcomings. And first, why does it leave itself, *i.e.* propagated irritation, entirely unexplained, without a hint of any pedigree of antecedents to generate it, but appears all at once, as Minerva sprang complete from Jupiter's brains, preceded only by a headache. "The real mystery," says Watson, "lies in this predisposition of the spinal cord to being tetanically affected." In thousands of cases these peripheral nerves may be irritated in every conceivable fashion, and yet the cord remains perfectly quiet and takes no notice of their "irritations." In truth, in our progress towards the knowledge of the essential ultimate pathology of tetanus, this theory does no more than help us, after a few circular turns, back to the same point whence we started. *Adhuc sub judice lis est*; for the question why does the cord become thus tetanizable, if we may coin the word, is as unknown as before. And yet this part of the subject, which the irritation theory leaves quite untouched, is really the whole matter; for when we are told that tetanus is caused by an exalted polarity of the spinal cord resulting from the irritation propagated from the extremity of a peripheral nerve, what does this information amount to, more than that the reason of tetanus is a tetanic state of the cord? "How can you explain, that in a piece of soft, black charcoal, and in the hard and brilliant diamond, we in each case have carbon, and nothing but carbon?" asks the learner of the chemist. "Why," responds the professor, gravely, "it is because carbon in the diamond is in an allotropic condition

from what it is in charcoal!" And similarly our pathological replies, the reason that a trifling irritation causes tetanus is, that the cord has by some means got into a state of extreme reflex tension!

But here let us ask, what is the precise signification intended by these favorite phrases, "reflex tension," "motor discharges," "exalted polarity," etc.? for they sound as if we were speaking of silver-plating machines or telegraphs, instead of the living human body. Has it indeed been established, that nervous force and electric force are so far identical, that we can convey the technics of the one over to the other without fear of talking nonsense? We do not deny that a connexion may still be shown between the two, and some time hence the blood be rightly called a galvanic bath; but we insist that we are a very long way from it yet, and should therefore be particularly cautious of uncertain analogies, especially as the alleged similarities will soon embarrass us by proving a great deal too much. Thus we are told, that by our admirable electrometers we can now detect and measure electric currents in motor nerves during muscular contraction; but, unfortunately, as strong and equally remarkable currents as ever sped down a sciatic nerve can be observed coursing cucumber vines, on any warm spring morning. These delicate meters only prove to our minds that electric currents may accompany or happen during nerve action, as they may during almost anything connected with motion, chemical changes, or active nutritive metamorphoses. We would not for a moment depreciate the researches of electro-physiologists, but we deny that they have yet explained one single nervous process with their ingenious and valuable instruments, much less any abnormal nervous process. We feel certain that the mysterious and fearful change from the healthy state of the nervous system, responding in such a wondrous and beautiful manner to both the outer and inner world, to that appalling condition when the gentlest impressions of the Creator's best gifts, light, air, and water, become so many quivering shafts of death, is as different from tension, polarity, and all such, as the growth of an embryo is different from the increase of a crystal. We object, therefore, to the use of these electric terms here, first because it is very difficult to dissociate the original ideas from the words, especially when we apply these words to such well-nigh unknown subjects as nervous processes; and secondly, because no such interchange is warranted by the very few analogies between the two.

The hematic theory, on the contrary, we think, gains additional probability to itself by offering a very natural explanation of many features of tetanus, such as its idiopathic occurrence, and its epidemic prevalence, connected, as many observers have remarked, with a malarial atmosphere. For if the cause lies in a *materies morbi* generated by depraved secretions or decompositions in the system, it easily follows that conditions productive of reduction or depression of systemic power, such as exposure to cold, weakening influences of long continued heat, malarial atmosphere, and other agents whose common result, though by opposite modes, is to lower the innervation and vitality of the constitution, may be sufficient not only to cause tetanus to follow a slight external scratch, but even produce it from some internal congestion, inflammation, or other depravation.* The bearing of facts of this kind is so

* Depressed states of organic nervous power, connected with nervous susceptibility and with increased irritability, seem to favor the occurrence of an attack of tetanus. More especially intertropical or warm and miasmatic localities, or otherwise contaminated states of air, and the arrest of the excreting processes, further tend to favor the appearance of the malady, by accumulating excrementitious materials in the blood, and aid the operation of the exciting causes enumerated above. (*Copland, Art. Tetanus.*) In confirmation of these words of Dr. Copland, we may state, that during a residence of some years in the East, in Syria, we found tetanus very prevalent during the rainy season, and comparatively rare in the dry. "A moist and damp air," says Williams (*Princip. of Med.*, p. 436), "must be considered lower than dry air in its vivifying power, inasmuch as it contains less free oxygen, and has a lower diffusive property to aid in its pervading the lungs in respiration. The greater facility which it affords the process of decomposition and infection should also be scored against it. Its disordering action may be in great measure traced to the physical properties of abstracting heat and electricity, and of checking

evident, that it has led many who favor the generally accepted pathology to qualify their statements for these conditions. "Tetanus, even," says Headland (*Action of Medicines*, p. 254), "depends very much on certain atmospheric conditions. There are sometimes, as it were, epidemics of tetanus, in which the slightest abrasion will suffice to bring it on among the people residing in a particular neighborhood. Facts like this must certainly be regarded as pointing to a condition of the blood as one, at least, of the causes of this terrible disorder. . . . We might conclude from these facts alone, that the blood is often the seat and origin of these diseases [of the nervous system]. But there is yet a stronger reason to induce us to suppose that they are frequently produced by some poison in the blood, which acts on and disturbs the nervous organs. Many medicinal substances present us with an artificial illustration of this action, for vegetable neurotics often, after their passage into the blood, bring about transient nervous symptoms, which are identical with those of disease. *The same is apparently the case with those unknown animal poisons that operate so as to produce nervous symptoms, without a nervous lesion.*"

Many have spoken of cold as a cause of tetanus, but it is not a whit more so than heat. "Larrey," says Dickson, "had an appalling proportion of cases among the wounded at the battle of the Pyramids, while after the battle of Eylau, under exposure to driving snow, extreme cold, and great hardship, very few were attacked." It is a cause of tetanus only when the result of its influence is the same as that of hospital air and debilitating heat—depression; and the chief feature of tetanus, its great systemic prostration, ought to lead us, from the family resemblance, to look for its parent, not among the agents that "exalt" functions, but among those that depress them.* The whole phenomena of spasmodic diseases are now being more truly recognised as indicating asthenic rather than sthenic antecedents. The anemic pathology of epilepsy may be considered as almost established. Hysteria and hysterie tetanus are now classed among diseases of hematic origin. The connexion of chorea with rheumatism, and of rheumatism again with certain forms of tetanus, is now more than probable; and theories once forgotten, we can readily see that increased reflex excitability is always an unmistakable sign of weakness. Who ever sees a blacksmith with fidgets? When, therefore, an acute malady appears whose distinguishing feature is a sudden and amazing increase of reflex excitability, perhaps in the system of a soldier or stone-hewer, the hematic theory answers—this is the result of a powerful exhaustive poison, attended with a rapid lowering action, while the irritative theory can only answer that the stone-hewer has somehow grown nervous and even more irritable than the lady who jumps from her seat at the slam of a door, by getting his spinal cord into a state of reflex tension from a "propagated irritation!"

The hematic relations of nervous diseases are yet but little investigated, but the results already obtained lend far more countenance to the hematic origin of tetanus than

against it. The researches of Eckel on the state of the blood in insanity, especially the changes that occur in the paroxysms of mania, are of exceeding interest quite as much with respect to the analogous affections of the spinal cord as to the functions of the cerebrum, for there it is in the blood that we can find alterations, when scalpel and microscope have sliced and peered in vain. The state of the vital fluid in tetanus has been strangely overlooked by pathologists; and many, no doubt, are deterred from the investigation by the extreme nicety of the processes for that determination of hematic changes on which reliance can be placed. Tetanus, however, is a disease of common occurrence in animals, especially horses and sheep; and it seems to us, something might be learned from experiments of transfusing the blood of an animal, so affected, into healthy animals. Even if tetanus did not follow from the first experiment of this kind, it would not militate strongly against the hematic theory, for many similar failures occurred with the same experiment in hydrophobia, some dogs refusing to take hydrophobia in any fashion; one, mentioned by Hertwig, having resisted no less than nine careful inoculations with the saliva in three years. But the converse of this is also converse in the deduction, for one well marked case of tetanus produced by injection of blood, would prove what several failures would not disprove.

The important practical bearing of the view we entertain of the pathology of tetanus, when we are to resort to the treatment of this fearful malady, is evident enough. If we look at it as made up of severe spasms from an exalted state of the proper function of the cord, we will use sedatives and relaxants without stint. We read accordingly of laudanum taken by the pint, and of heroic doses of belladonna, aconite, tobacco, and woorara, but unfortunately with little more effect on the tetanus than so much sweet oil. Certainly in its well-marked forms, the failures of treatment in this affection do not fail to keep up the analogy with hydrophobia. But if we regard the blood as the primary seat of the disease, our main reliance will be placed on hematic agents, such as iron, mercury, or iodine; and in practice these medicines have been quite as successful as nervines, if not more so. Dr. Elliotson long ago praised the efficacy of large doses of carbonate of iron. "The only two cases that ever recovered under my exclusive care," says Dr. Dickson, "were early and profusely salivated, and kept so for many days." We would, from the acknowledged power of iodine over strychnia as first enunciated by Donné, look to this agent as perhaps under certain conditions curative, but the analogous compound of the bromide of potassium seems to offer a still better prospect of success. Its remarkable power as an antidote to animal poisons, as in snake-bites, has been sufficiently tested, we think, to establish it; but it has also proved of very singular benefit in several spasmodic diseases. Dr. C. B. Radcliffe uses the following strong language with reference to its action in epilepsy: "I can testify that bromide of potassium is a very valuable remedy, more or less serviceable in cases the most dissimilar in character—so serviceable that the name of Sir Charles Locock ought always to be remembered with gratitude by every epileptic, and by many suffering from other kinds of convulsive disorder. How to explain the *modus operandi* of this medicine is no very easy matter, but I am inclined to think this, in part at least, is by an alterative action upon the blood."* But though we would place our main reliance on such hematic agents as directed to the cause and not to the mere symptoms of the disease, nervines would yet hold an important place in the treatment, as they do in all great nervous derangements; but instead of selecting those of a sedative or depressing nature, we would, from the primary tendency of the malady to exhaustion, be disposed to resort to nervine stimulants, as assafoetida, musk, camphor, and alcohol, to uphold the sinking nervous force, while the hematic agents were counteracting the toxic cause in the circulation.

perspiration and assimilation, which it obviously possesses. Hence ensue the retention of lactic acid in the blood, the formation of oxalic instead of lithic acid, and the imperfect elaboration of the plasma; and these aberrations from the normal chemistry of the body may manifest themselves in the shape of various diseases of the blood."

* West, speaking of trismus neonatorum, says: "Nothing can be more satisfactorily proved than the tending of a vitiated state of atmosphere to produce it. Where such a condition exists, there trismus abounds, be the peculiarities of climate or temperature what they may. It is very frequent among the children of the negroes in the slave States of America; it is depopulating the island of St. Kilda; and sixty-four per cent. of the infants born in Westmanoe, a small islet off the coast of Iceland, die of it between the fifth and twelfth day from birth. Dirt and defective ventilation are probably almost the only points in common between the dweller in the Southern States of America and the inhabitants of Northern Europe and the Arctic regions. But if any further proof were needed that to this cause this disease is really to be attributed, we are furnished with it in the records of the Dublin Lying-in Hospital. Sixty years ago, one-sixth of the children born in that institution died within a fortnight after birth, and trismus was the cause of death of nineteen-twentieths of these children. Dr. I. Clarke adopted means to secure the efficient ventilation of the hospital, and the mortality fell only 1 in 58½, and but a little more than the ninth part of that mortality depended on trismus." (*Diseases of Children*, p. 154.)

CRUVEILHIER'S ATROPHY

OF THE

UPPER EXTREMITY FROM INJURY OF THE
WRIST-JOINT (?)

RECOVERY UNDER THE USE OF FARADIZATION.

BY FREDERIC D. LENTE, M.D.,

OF COLD SPRING, NEW YORK.

T. D., aged 17 years, apparently in robust health, applied April 12, 1859, for "weakness and wasting of the right arm," with the following history. More than three years ago, he fell down a rocky precipice, with steep rugged sides. I was called to him after he had been carried to the house, and found that he had suffered no material injury anywhere, but was severely bruised all over. He says now that there was an injury and displacement of the right wrist, but he did not, at the time, think it serious enough to call attention to it, and it escaped my notice. About a year ago, he went to work in the foundry here, which caused the wrist to be brought into pretty powerful action; he then complained of considerable pain at the seat of injury, and finally applied to Dr. Hardaway, then my assistant, who gave him tinct. of iodine to paint over the wrist. This gave no relief, and the pain has troubled him ever since, always greater when the work is harder, or more continuous, and seldom troubling long after leaving off work. Three months ago, he noticed a gradually increasing *weakness and wasting* of the forearm and arm, and this has very much increased of late. The lower extremity of the ulna projects considerably, and the wrist has very much the appearance it presents after Barton's fracture. In fact, there has been undoubtedly a fracture of the lower end of the *radius*, as the line of fracture posteriorly can be distinctly traced. Just over the posterior aspect of the carpo-ulnar articulation, is a soft and very slight tumefaction, pressing upon which, he complains of quite severe pain. He cannot extend the hand perfectly, nor can he flex the fingers to more than half the natural extent. He does not complain of any "numbness" of the affected member, or of pain of any description in any other part than that mentioned; nor has he ever done so. The *sense of touch* is perfect, and there is no tenderness of the spinal column. The muscles of both the arm and forearm are very flabby, and do not become at all rigid when brought into action; whereas, those of the left arm stand out with remarkable prominence when similarly circumstanced. The *deltoid* is the only muscle unaffected. The right limb, to the eye, appears at least one quarter less in muscular development than the left. By actual measurement, the right arm is, in circumference, nine inches and a half; the left, ten and a quarter; the right forearm, ten inches; the left, eleven and a quarter. It was noticed, by himself and his mother, that the wasting of the member preceded the weakness.

Treatment.—Faradization for twenty-five minutes daily, by means of the apparatus of Legendre and Morin; the positive pole about the shoulder, and the negative held in the hand. Friction twice daily, with veratrine ointment over the painful part. To take potass. iodid. gr. iv. *ter die*. It is not convenient for him to quit work for the present, so he is allowed to continue it. Latterly, the use of his right arm has become so difficult and painful that he has learned to use his left in striking with the hammer, and thus he relieves the right when it becomes tired. April 15, states that his arm felt weaker when he awoke to-day, and that it has felt weaker all day; is using the lowest power of the apparatus, and with this cannot hold the *positive* conductor in his *right* hand, while he can do so without discomfort in his *left*. Has had no pain about the wrist since using the ointment twice. To stop it, also the iodide, and take tinct. nucis vomicæ ℥iv., strychniæ gr. one sixteenth *ter die*. Continue electricity. April 19.—Thinks the strength of the arm is increasing a little. He is also using friction of the arm several times daily. April 24.—

Thinks that he has been gradually improving; the electricity is used regularly except on Saturdays. To discontinue the strychnine and nux vomica, as he thinks it makes him feel uncomfortable. May 9.—Patient thinks he has perceived a regular, but very gradual improvement since the first few applications of the electricity. The muscles are evidently firmer, and now stand out quite distinctly when brought into forced action. By measurement, the size is the same; has not been working for a couple of weeks; allowed to go to work again at his request, but not to boiler-work, which necessitates constant hammering with a heavy implement. July 15.—The application has been daily continued with the exception of a few days when he was absent from the place. He now uses the arm almost as well as ever at his trade, boiler-making. It has, however, but very slightly increased in size; but the muscles are much harder, and quite distinct from each other when brought into action. July 30.—Has been working very hard lately, and has not been able to use the electricity with any regularity, but the arm still improves, and he is directed to continue the treatment for the present. October 4.—Has used the electricity but little since last date, and complains now that the arm is growing weaker again, and that the wrist is painful. Upon examination, the muscles are much more flabby than when he was last seen. Directed to re-commence the treatment. October 11.—The electricity has been applied since last date by means of a large rotary magneto-electric apparatus, combining five permanent magnets. But patient states that he does not improve as he did when using the other machine. He is accordingly directed to have the latter again applied. November 12.—He has been using the machine regularly up to this date, and, as he states, with regular improvement. March, 1860.—Patient, finding himself very well after continuing the application for a couple of weeks longer, discontinued it. He can now work continuously without fatigue or pain. The limb has a totally different appearance from what it had at first; the muscles being hard and well developed. By measurement, there is a gain of half an inch in the circumference of both the arm and forearm. Jan. 8, 1861.—Has had no further trouble.

Cold Spring, January 11, 1861.

DIPHTHERIA, AND ITS TREATMENT,

By R. R. LIVINGSTON, M.D.

OF PLATTSMOUTH, NEBRASKA TERRITORY.

DIPHTHERIA is by no means a new disease, as many are in the habit of styling it, for the curious in medical literature will find it described in writings dated as far back as the sixteenth century; and the probabilities of its existence long prior to that time, are certainly very strong. Owing, however, to the imperfect knowledge of pathological anatomy among the earlier writers, its anatomical characters were but imperfectly described; while it suffered, at their hands, the fate of being confounded with other diseases of the same class. Indeed, among our own writers this confusion obtains to a very considerable extent, as sundry discussions, on this subject, before some of our academies of medicine amply testify—where Professors and others who are looked up to as the great lights of our science, have followed almost in the very footprints of the earlier teachers in medicine.

There is no denying the fact that this disease has been forced into a scientific alliance with *Cynanche Trachealis*, and while I strongly doubt the propriety of this confusion, I readily admit, that so truly difficult is a correct diagnosis in numerous cases—one that can authoritatively indicate a marked and unmistakable difference between the two diseases—that many, myself among the number, have sometimes fallen into the fatal error of assuming one for the other. The only consolation I have found, when too late to remedy the error, was, that I was not alone in the false

treatment, assumed as the best. In truth, the mortality of diphtheria is not so much owing to its fatal and death-doing character *per se*, as it is to the too frequent employment of debilitating remedies based upon an incorrect rendering of the complicated symptoms offered for inspection. I feel that in advancing this assertion, I am venturing on dangerous ground; but I fear that if I have been bold, not a few of the Profession will admit it has been on the side of truth.

Guersent, Brctonneau, Laennec, Cullen, and a host of high authorities have noticed this form of angina, but, as at the present day, it has been considered as merely a more malignant type of another disease. Under the terms *cynanche maligna—plastic pharyngitis—diphtheritica maligna—angine gangreneuse—diphtheric—angine couenneuse—ulcerated sore throat—putrid sore throat—black tongue*, &c., it has been known and described, in part, but nearly, if not always, in connexion, as above stated. Medical works on anginous affections are certainly numerous enough, but notwithstanding this, there seems to be a desire among practitioners to-day for more, if not better, information on the subject. My experience has led me to arrange all the cases of diphtheria which I have treated or witnessed, under two heads, viz. *Sthenic* and *Asthenic*. This is a simple classification, and yet I have found it comprehensive enough to embrace every variety which has fallen under my notice.

In the *Sthenic* form there are no *premonitory* symptoms, or if they exist, they are always of very short duration; and this might in many instances be held true of the stage of *invasion*, for there are cases in which the affection steps, as it were, at once into the arena, in all its force and violence. More commonly, however, the invasion is marked by rigors and flushes of heat, following each other in quick succession, until the whole surface of the body becomes intensely hot, and the fever is fully developed. The first alarm may be a cough, or not; the pulse is full, vigorous, and hard, sometimes irregular; the tongue retracted, coated little or much, with clear red tip and edges; the fauces, tonsils, velum palati, and the lateral arches are generally red and inflamed; the uvula elongated at times, so as to cause a suffocative cough; not unfrequently one or more white spots will be discovered on the tonsils—frequently not; the eyes are unusually sensitive to the light, suffused and brilliant; the bowels torpid; the urine small in quantity, and high-colored; albuminuria is not always present; the brain is unimpaired, and the whole train gives evidence of vascular irritation, with increased action. In the formidable varieties of this type, encephalic disturbance supervenes before the pseudo-membranous exudation is formed, and the coma, convulsions, and death ensue; or the vital energies are prostrated, and the patient sinks rapidly into the typhoid condition. In this variety the invasion is sudden, the disease attacking the subject while in the full enjoyment of health, and for the most part selecting for its victims the plethoric and robust.

In the *Asthenic* form, the stage of invasion is always preceded by those peculiar premonitory signs which characterize this type of disease, viz. lassitude and weariness, occasionally diversified with a temporary rallying of the general powers; loss of appetite; pale and dejected countenance; eyes dull and lustreless; there may be some complaint of soreness in the throat towards evening, and a cough may be present, but the efforts of coughing will be accompanied by all the phenomena indicating pain in the region of the throat; not unfrequently there is little or no complaint of soreness, until the stage of invasion sets in, and terminates this general feeling of malaise, by the usual chills and hot flushes running on, until the pyrexia is established, generally in from five to twelve hours. There is then increased action, constituting the stage of excitement, but this speedily subsides, and the typhoid character of the malady is evident from the nervous disturbance. Remissions sometimes take place towards morning, but our guide must be the irritation with *decreased power of*

acting, the vital forces seeming to fail from day to day; and then we will hardly fail of recognising the adynamic tendency of the subject. The local symptoms in this form are not always alike; one or both tonsils may be marked with white or greyish spots, surrounded by inflamed edges; there may or may not be a ropy mucus in the mouth, hanging like a film from the roof of the mouth to the tongue when examined; more often there is considerable fever of the breath; the efforts to swallow are painful; the glands of the neck, more particularly the submaxillary and parotid, will be swollen, and hard and painful to the touch; the fauces will be inflamed, and the appearance of the throat generally gives evidence of inflammatory action. Usually there will be found in some, or all of its parts, patches of concrete exudation, and streaks of the same, surrounded with the usual red edges; the pulse is rapid, weak, and irregular; and occasionally there is an exanthem over portions of the body. As the disease advances, the prostration increases, the pseudo-membrane may extend, and give a croupal form to the disease, and death may result from asphyxia; or the exudation may be so slight as not to embarrass the respiratory organs at all, and yet the patient may sink into a hopeless coma, and death terminate the scene.

Both these forms of attack are subject to modifications, and I have witnessed cases in which there was no febrile reaction at all, the system remaining oppressed throughout the whole disease; the vital energies being literally overwhelmed from the first moment of attack, sinking the patient steadily until vital action ceased altogether.

It has been from a careful observance of the foregoing constitutional as well as local symptoms, that I have based a treatment upon the "*febrile character*" of this disease, and assumed a division, which in practice has resulted as favorably as I could have desired. The "*initial treatment*," if you will grant me the expression, is of the very utmost importance towards a favorable termination, and should ever be the result of a careful discrimination between the two forms of attack I have so hastily sketched. It is when first called to the bedside of a patient suffering from diphtheria that we are most apt to make a *faux-pas*, and not unfrequently, too, an irretrievable one, for the case which demands sustaining treatment will scarcely admit of any debilitating measures, and *vice versa*.

In the treatment of the *sthenic* form of diphtheria constitutional as well as topical remedies are of the utmost importance. There are three principal indications to fulfil: 1st, to reduce the momentum of the circulation; 2d, to remove any acrid or irritant matter which may produce undue excitement; 3d, to restore the secretions of the liver, kidneys, and skin.

The first indication can very readily be accomplished by a careful administration of Norwood's fluid extract of veratrum viride—never pushing the doses to emesis—or the use of the lancet in a bold manner at the first bleeding, always opening a large orifice, and obtaining a full stream; frequent abstractions of blood are to be deprecated. The second is obtained by the use of sulphate of magnesia combined with minute doses of antim. tart., or the citrate alone, or jalap and pot. bitart. To restore the secretions the cautious use of calomel combined with ipecac, the warm bath, and spts. ether. nit., will answer every purpose. The topical treatment consists for the most part of insufflations of powdered burnt alum, and the removal by any means of the pseudo-membranous exudation, if it exists. Touching the patches with muriatic acid has sometimes proved highly satisfactory; but I never make use of gargles unless the mucous membrane of the throat is extensively implicated, and then I use a strong solution of argent. nit. Let me here urge the imperative duty of the physician to watch the disease constantly, for the whole character of the malady may suddenly change to a typhoid of a low and dangerous form; and the patient may sustain irreparable injury from the hands of some kind-hearted nurse in whose care are the remedies adapted to the inflammatory stage.

Warning and frequent visits can alone avert a mistake at this period, for it is now that the real skill in medication is demanded, and upon a correct appreciation of the symptoms the life of the patient depends. If with the subsidence of the sthenic type of the disease, there appears a typhoid tendency, with prostration, we should not hesitate to sustain the patient; although the pulse be rapid, its volume will be found far below its standard, and unless prompt and efficient aid is afforded nature will sink and the patient die. Tonics are sometimes inefficient to answer the end, and I have had to resort to stimulants. Madeira wine I have found the best. Of the tonics, muriated tinct. of iron and bark, or its alkaloid, the sulphate, are the best; strychnia and iron also form an efficient and powerful tonic. If we follow the general rules of practice in the case of a typhoid patient, our success will be insured.

In the asthenic form of diphtheria the general rules of treatment will be based upon the stage in which the patient is found. If called during the premonitory stage, which is almost always of considerable duration, arouse the secretory powers of the principal organs by the use of the usual means; and if possible, to secure healthy secretions before the accession of the stage of excitement, use quinine and iron as a prophylactic, and introduce chlorate of potassa into the system freely to disinfect the blood, for I regard diphtheria as essentially a blood-poisoning as our most malignant typhus. In the stage of excitement, moderate the force of the circulation, but be careful not to destroy the tone of the stomach. Keep it intact, if possible, for with the first signs of nausea the disease resumes a more dangerous character. The septic tendency will indicate the free employment of disinfectants, as chloride of lime, in the apartment where the patient lies. The clothes must be frequently changed; the bath, warm or tepid, according to the condition of the heat of the body, should be employed occasionally to restore the function of that important organ, the skin, and also for the sake of healthful cleanliness; pure air is all-important. When the pyrexia ceases, and the work of prostration begins, meet the indications with stimulants or tonics as the case may require.

Of course the local difficulties of the throat will need early and assiduous attention. Insufflations of powdered burnt alum, every one, two, or three hours according to the urgency of the case, and the steady and frequent removal of all appearances of plastic exudation, whenever it forms, so as to give the alum a fair opportunity of reaching the seat of disease, I have found usually sufficient. Touching the spots with nitrate of silver was a favorite plan with me, but I have abandoned it for the use of alum. I am convinced of the great and paramount importance of the frequent use of these insufflations, in cases where the membranous deposit forms rapidly, from experience. If the larynx becomes involved the danger is increased an hundredfold, and it *must be prevented* by this treatment; even this, however, will fail sometimes, and then the method of producing a separation and expulsion, by the use of emetics, as practised in croup, comes foremost to the mind; but I never practise it; fear of disturbing the stomach prevents me. Instead of emetics I use a feather, or other convenient instrument, wherewith to procure such titillation of the fauces as will cause coughing, and the same expulsive efforts as ensue from emesis, without its debilitating effects. But this too will fail, and asphyxia seems imminent. What then should be done? Would any sane practitioner hesitate to announce to the relatives and friends of the patient, the importance of the sole remedy left? I grant that this is a fearful ordeal for the physician as well as the patient, but I would not deny them the only resource which remains when this moment arrives. Tracheotomy is the *dernier ressort*, and let it be done, hopefully and with confidence; but do not delay until the membranous deposit lines the bronchi. The exact moment of election must be left to the discretion of the attending physician, but I would advise that it be done early. Twice in my practice I have performed it, once only success-

fully; but I think that the first case was operated on too late.

Convalescence from diphtheria is fraught with danger, and requires the enforcement of all the attendant's orders; it is tardy, occupying not weeks but months, and throughout the sustaining treatment must be followed.

Finally, let me say, I believe this affection to be *contagious*. I think that I am safe in asserting that I *know* it to be so. Let then the family physician, when called to such cases, warn the parents of the fact, and he will, in fulfilling this duty, perchance save the lives of some of the family.

Reports of Hospitals.

ST. LUKE'S HOSPITAL.

SERVICE OF DR. CLARK.

ANEURISM OF THORACIC AORTA.

[Reported by EDWARD E. DALTON, M.D., Resident Physician.]

A MAN, forty-three years of age, entered St. Luke's Hospital in April, 1860, having a small pulsating tumor situated just beneath the angle of the left scapula. He gave the following history:—"Having previously enjoyed general good health, he began, during the month of May, 1857, to be subject to severe pain in the left side, accompanied with palpitation of the heart, especially on violent exercise. These symptoms troubled him more or less constantly for the ensuing two years, though never compelling him to abandon his ordinary occupation, that of a weaver. In the month of March, 1859, he suffered from an attack of acute articular rheumatism, and some six weeks later entered St. Luke's Hospital in an enfeebled condition, and complaining of severe pain in the left side of chest, especially about the cardiac region, and of palpitation. The left side of chest was moderately dull on percussion, its motion in respiration less free than that of the right, and its intercostal spaces more prominent. The respiratory sounds were feeble over the entire posterior aspect of chest. The apex of the heart was found at a point two and a half (2½) inches below the nipple in a direct line. The cardiac impulse was abnormally forcible, and perceptible over an unusually large area. On auscultation a soufflé was heard over the left chest posteriorly, while over the situation of the base of the heart a double murmur was to be heard.

After several weeks the patient left the hospital much improved in general condition, and greatly relieved of his special symptoms, though by no means free from them. The thoracic pain and occasional palpitation continued to trouble him; and in February, 1860, his general health again failed to such a degree as to oblige him to give up work. A few weeks later, in March, he discovered the phenomenon for which, with its accompanying symptoms, he re-entered the hospital during the following month. At that time a pulsating tumor was apparent just below the lower angle of the left scapula, semi-ovoid in shape and measuring 4½ inches in its longitudinal, and 3½ in its transverse direction. The pulsation was forcible and expansive in character. The overlying tissues were tense and elastic; the skin retained its natural color, and there was no marked tenderness; there was no thrill. On auscultation directly over the tumor a distinct double murmur was heard; as there was also in front over the heart. A more extended examination detected moderate dullness on percussion over the left side of chest, with enfeebled respiratory sound. The ribs in the vicinity of the tumor were very slightly, if at all, abnormally movable. Upon this point there was difference of opinion. There was slight loss of sensation in the skin covering the chest and abdomen on the left side, but no muscular paralysis.

The patient suffered from night-sweats of moderate severity, but was able to walk about with ease. During the first six weeks of his residence here he suffered occasionally with moderate pain in the left chest, and with attacks of palpitation and irregularity of the heart's action. His general health became decidedly improved; the night-sweats abated, and the attacks of pain almost entirely ceased. The tumor steadily increased in size, retaining otherwise the same characteristics as at first. Through the month of June, the patient's condition was very good, and almost no medication was called for, except now and then for a recurrence of the night sweats. With the exception of a slight inclination towards the left side he walked erect, used his limbs with ease, and was able to be out of doors nearly every day. The tumor steadily increased in size, its right limit being close to the vertebral column, and its increase being towards the left and downwards. The same condition, with accidental variations, continued through July and the early part of August. At that time the tumor had reached the size of $6\frac{1}{2}$ inches lengthwise, and $4\frac{1}{2}$ transversely; and still presented the same phenomena as at first. During the latter part of August and September, the patient's general condition deteriorated very much, and he was frequently confined to his bed for several days at a time mainly from debility, at times amounting to exhaustion. He suffered but little pain, and no treatment was necessary, further than for nourishment and support.

Early in October, the increase of the tumor became suddenly more rapid. It was no longer confined to the left of the spinal column, but encroached upon the latter until it entirely covered it; and on the 22d of the month presented a transverse measurement of 7 inches, and a longitudinal one of $8\frac{1}{2}$. At the same time, a narrow and flattened extension of the tumor was observed from its lower edge along the left side of the vertebral column for some four inches, and having the same expansive pulsation as the tumor itself, although in a less degree. The paralysis of sensation over the surface of the left side of the chest and abdomen became more decided, but was still unaccompanied by any loss of muscular power. Pain in the chest became a troublesome symptom, and the patient's general condition rapidly deteriorated. The physical signs were in all important respects the same as at first. The tissues overlying and in the vicinity of the tumor were very tense, and the question of the mobility of the ribs was still mooted. Some of the gentlemen who examined the case felt satisfied of the existence of unnatural mobility, while others doubted or denied the evidence.

The constitutional symptoms now became steadily aggravated, and the pain more constant and severe, extending through both sides of the chest, and at times into the abdomen. The patient hardly left his bed, though he could sit up with ease, and apparently suffered from no impairment of muscular power further than that resulting from general debility. On the 13th November the tumor extended fully between the angles of the two scapulae a length of eight inches, and measured nine inches in the opposite direction. On the 22d of November these measurements had increased respectively to eleven and thirteen inches. Still the physical signs and general phenomena remained materially the same as in the earlier history of the case; with the exception that as the protrusion and extension of the tumor became constantly greater, the double-murmur heard upon auscultation became less distinct, at times scarcely audible. The pulse at the wrist had now become very feeble, and was frequently so very small, and the patient's whole appearance indicative of such utter prostration, that it would seem impossible he should survive more than a few hours. The thoracic and abdominal pain was almost constant and very severe.

On the 18th of December, in view of the difference of opinion which had existed regarding the character of the tumor from the first, an exploratory puncture was made at a point near its upper limit, and three inches to the right

of the spinal column. The tumor was slightly softer in that situation than elsewhere, and a slender, grooved exploring needle was introduced throughout its entire length of $2\frac{1}{2}$ inches. The point of the instrument encountered resistance everywhere, and no cavity was reached. A few drops of fluid blood followed the withdrawal of the needle, and its groove was filled with blood and fibrine. A coating of collodion and lint was placed over the wound, and no unfavorable symptoms resulted from the puncture. At this time the tumor occupied the whole breadth of the back, standing out flush with either side, its transverse measurement being now the greatest, viz. seventeen inches, from above downwards it extended fifteen inches, and had a depth of seven inches.

With the exception of slight ulceration of the skin over the tumor, there was no marked change in the character of the patient's symptoms after the last date until the 9th of January, 1861, when he quietly died as if from exhaustion.

Autopsy, eighteen hours after death.—The appearance of the tumor was the same as before death, except that its tension and that of the adjacent parts was no longer present.

On laying open the chest old and firm pleuritic adhesions were met with, especially on the left side. After the removal of the lungs a tumor was disclosed lying directly beneath the aorta, just below the arch. Its long diameter, parallel with the course of the artery, was five inches, its transverse four and a half inches. The tumor was well defined, except on the left side, where its limit was lost in an irregular, flattened swelling which spread off to the ribs, and occupied an area of some four or five square inches. A longitudinal incision was made through the anterior wall of the aorta, through which was seen, in the opposite wall, a regular, oval aperture, about five-eighths of an inch in diameter, situated some three inches below the arch. This aperture communicated directly with the underlying tumor, which was now proved to be a pouch formed by an expansion of the arterial coats. Compression applied to the large tumor outside the posterior thoracic wall forced a stream of blood through this aperture. The body was now turned over, and an incision carried through the entire length of the external tumor, when the latter was found to be a pouch formed solely by the expansion of the tissues overlying the bony thoracic wall, and lined for a depth of three inches or more with dense coagulated blood. Within this was a cavity of considerable capacity containing fluid blood, and communicating with the internal or true aneurismal sac by an irregular chasm through the eroded bony wall, where the arterial coats had ruptured.

The dorsal vertebrae from the sixth to the tenth inclusive were considerably eroded, the seventh, eighth, and ninth extensively so, especially on the left side. At this situation there was slight lateral curvature, its convexity towards the right side. The fifth, seventh, eighth, ninth, tenth, and eleventh ribs on the left side were also partially destroyed, the ninth and tenth being severed from their connexion with the column, and wholly wanting for some three inches of their length. The spinal canal was nowhere opened into. Within the chest, beside the aneurismal sac, and to the left of it, the soft tissues had been forced off the ribs; thus giving rise to the flattened swelling observed in the early part of the examination.

BUFFALO HOSPITAL OF SISTERS OF CHARITY.

SERVICE OF PROF. T. F. ROCHESTER.

[Reported by H. P. BABCOCK, Student of Medicine.]

ACUTE ARTICULAR RHEUMATISM SUCCEEDED BY PERITONITIS AND PERICARDITIS; RECOVERY.

JOHN McHUGH, aged 19, was admitted December 8, 1860, suffering with articular rheumatism in the lower extremities, after an illness of five days; joints swollen and painful; pulse 85; high fever; tongue heavily furred; bowels constipated; heart sounds normal. He has had feb. int., and

states that he now has an exacerbation of fever every afternoon. *R.* Hydrarg. chlor. mitis et rhei $\bar{a}\bar{a}$ grs. x. followed by rochelle salt \bar{z} ss., also quinae sulph. grs. vj. every four hours, and pulv. doveri grs. viij. at night. Cotton wadding around limbs. This treatment was continued till the 8th, when he complained of considerable pain in the abdomen, which was considered rheumatism of the muscular coat of the bowels. The treatment was continued, and a purgative enema administered. On visiting him next day, it was found that the abdominal pain had increased; that there was great tympanitis and tenderness on pressure, especially in right iliac region. Respiration was hurried and thoracic; decubitus dorsal, and knees drawn up; febrile movement intense; pulse one hundred and thirty; administration of quina suspended; ordered pulv. doveri grs. x. et morph. sulph. gr. $\frac{1}{4}$ M. every four hours. Hot fomentations to abdomen. *December 10.*—No improvement. *R.* Hydrarg. chlor. mitis gr. j. et pulv. opii grs. ij. M. every four hours, and morphia as before. He gradually improved under this treatment till the 15th, when his pulse, which had fallen to one hundred, suddenly rose to one hundred and twenty, and was small and feeble. On auscultation over the cardiac region a well marked basic bellows murmur was perceived. The area of præcordial dullness augmented with local tenderness. Heart sounds faint and distant. *R.* Blister 3×3 , to be dressed with ungt. hydrarg. mitis and pulv. opii every four hours internally. Calomel suspended, as it was producing free catharsis. *Tr.* opii \bar{z} j. by enema; beef essence freely. *December 18.*—Abdominal tympanitis and tenderness much less; area of præcordial dullness diminished; apex beat perceptible in fifth intercostal space; basic bellows murmur very faint; heart sound more distinct; pulse one hundred. *R.* Pulv. opii et quinae sulph. $\bar{a}\bar{a}$ gr. j. ipecac gr. $\frac{1}{4}$ M. every four hours; whiskey \bar{z} ss. every four hours. *December 21.*—Great improvement; pulse ninety; bowels more spontaneous. *R.* Quinae sulph. gr. i., pulv. opii gr. $\frac{1}{4}$ every four hours. From this time patient rapidly convalesced. The exceptional noteworthy feature in the above case is the supervention of peritonitis on rheumatism of the muscular coat of the bowels. The subsidence of pericarditis under the almost exclusive use of opium and stimulants is likewise deserving of remark. No decided evidences of mercurialization could be detected on the gums or in the breath, and no mercury was given after the detection of pericarditis, except a little endermically in the form of ungt. hydrarg. nite which was used for three days as a dressing to the blistered præcordial surface.

UNIVERSITY MEDICAL COLLEGE.

PROF. ALFRED C. POST'S SURGICAL CLINIC.

CURIOUS DEFORMITY; EXSECTION OF THE HEAD OF THE BONE.
REDUCTION OF DISLOCATION OF HEAD OF OS BRACHII OF
SEVEN WEEKS' STANDING.

CASE 27. Resection of Head of Os Brachii for Dislocation with Fibrous Ankylosis.—Rachel L., æt. 8 years. This is a pale and delicate looking child, who has a remarkable deformity of the right upper extremity. The father says that the arm was injured during the birth of the child, and that it has been deformed ever since. There is no considerable motion of the shoulder-joint, but the scapula moves freely upon the trunk. The position of the arm is that of extreme inward rotation at the shoulder-joint with the hand behind the back. The nutrition of the limb is defective, and the innervation is much impaired, so that the patient can exert but little power in its movements. I propose to make an effort to remove the deformity, and to restore the motions of the limb by exsection of the upper extremity of the os brachii, hoping that I may thus succeed in forming a useful artificial joint. (The patient was then brought under the influence of æther, and the operation was performed. A longitudinal incision was made near the posterior edge of the deltoid, dividing the fibres of that muscle,

and exposing the head of the os brachii, which was found to be dislocated on the dorsum of the scapula. The capsule was divided, and the extremity of the bone turned out. A leaden spatula was passed beneath the bone to protect the soft parts, and a portion of the bone about three-quarters of an inch in length was removed with a saw. On examining the limb, and moving it in different directions, it was thought best to remove an additional portion of the bone. This was accordingly done, the second portion being nearly as long as the first. The hand was then brought forward across the anterior part of the chest, where it lay in an easy position, without apparent deformity. The edges of the wound were brought together by means of eight twisted sutures made with insect pins.

CASE 28. Reduction of Dislocation of Shoulder, Seven Weeks' Standing.—M. C., æt. 53. This man had a fall on his right shoulder nearly seven weeks ago, since which time he has not been able to use his limb. I find on examination that the acromion process appears sharp and prominent, and there is a hollow beneath it. The arm appears a little longer than its fellow, and the head of the os brachii can be felt in the axilla. These signs clearly indicate a dislocation downwards into the axilla. If this luxation had recently occurred, its reduction would be comparatively easy. In old dislocations, much greater difficulties are encountered. These difficulties arise from the contraction of muscles, and from the partial healing of the lacerated capsule. I will now bring the patient under the anæsthetic influence of æther, and will make the attempt to reduce the dislocation, but as I am not provided with instruments, I may perhaps fail in the effort. (The patient was then brought under the influence of æther, and Prof. P., assisted by Drs. Hinton, Buck, and Krackowizer, undertook the reduction. The limb was brought over the patient's head, and extension was made in a direction towards the glenoid cavity, which counter-extension was made in the opposite direction. After continuing these efforts for a number of minutes, the arm was brought down by the side of the patient, a fulcrum was placed in the axilla, and the arm brought across the thorax. After repeating the extension and counter-extension several times, and as often having recourse to the prying motion across the chest, suddenly with an unusually loud snap the head of the bone went back into its place. The report was so loud as to lead to a suspicion that the bone had been fractured, but on careful examination it was ascertained that a reduction had been effected.)

COLLEGE OF PHYSICIANS AND SURGEONS.

DR. PARKER AND MARKOE'S CLINIC.

December, 1860.

CASE.—Cystitis.—Peter G., æt. 50, blacksmith, complains of dull pain in the loins, chiefly upon the left side, stretching across into the lumbar regions, and down into the pelvis. His trouble commenced about eighteen months ago, without any assignable cause. It has been gradually increasing in severity up to the present time. He is now unable to retain his water for more than a few minutes at a time, suffering great pain in the lower portion of the abdomen whenever he attempts to micturate. That portion of urine which first passes from his bladder is generally accompanied by mucus or pus, sometimes ropy, though never bloody. There is always a deposit of white sediment upon standing. His pulse is one hundred; tongue clean; eats well; sleeps well; and, aside from these symptoms, he has never had gonorrhœa nor stricture, and upon passing the sound into his bladder, no stone can be felt.

Remarks.—The symptoms which this man presents, viz. the dull pain in the back and pelvis coming on gradually for a year and a half, the irritability of the bladder, the frequent micturition, and unnatural urine, with the sediment of phosphates always present, are those of cystitis, and from the absence of any appreciable cause to which to

refer them, we must consider it one of those chronic idiopathic inflammations of the bladder which are sometimes met with. Among the causes of cystitis are, calculi in the bladder; disease of the kidney; exposure to cold; and masturbation; the inflammation commencing in the last case in the seminal ducts and urethra, and from thence spreading to the lining membrane of the bladder, giving rise to frequent emissions of semen.

Treatment.—Is first general, then local. The patient should be warmly clad with flannel next the skin. He should live upon plain unstimulating diet, take plenty of out-door exercise, and, in addition, the following:—Liquor potassæ, gr. xv., decoct. uvæ ursi 3 ij. M. The effect of this alkaline treatment upon the inflamed mucous membrane should be closely watched, and, if not satisfactory, counter-irritants, in addition, should be employed, in the shape of a small blister over the bladder.

American Medical Times.

SATURDAY, FEBRUARY 9, 1861.

WET-NURSES.

WE some time since received a communication from an English correspondent who has given much attention to the subject of wet-nursing in its bearings upon the public health. From this source we learn that at the International Statistical Congress, held at London last year, Dr. EDWARD JARVIS, a delegate from Massachusetts, in the discussion which followed the reading of a paper on the *Statistics of Wet-Nursing*, remarked that in the United States "the employment of a wet-nurse is very rarely resorted to; indeed, the custom is almost unknown there." This statement seems to have excited great interest, and has been the subject of much comment. Coming from a responsible source it has been received as authoritative, and has afforded good ground for the supposition that wet-nursing is by no means as necessary as the ladies of England seem to consider.

We do not know the source of Dr. JARVIS's information, nor on what investigations his conclusions were based. They should certainly have been arrived at only after extended inquiry, especially in our large cities, as, uttered in that high presence, they could not but have an important influence upon the discussions which followed the reading of the paper mentioned. Nor has their influence ceased with the adjournment of the Statistical Congress, but we now learn that subsequent writers have alluded to them as conclusive on the subject of wet-nursing.

Although we are not prepared to give statistical data, yet the results of extensive observation authorize us to state that wet-nursing is far from being unknown in New York city. On the contrary, it may be considered a very prevalent custom, supported alike by necessity and fashion. Whoever will consult the columns of "Wants" in our daily papers will soon become satisfied of the existence of this practice in our community, though it is not possible to obtain a knowledge of its extent from that source. To gain more accurate information of the amount of wet-nursing requires familiarity with the lying-in departments of our public charities, and with the poor and unfortunate in

their homes. Extended inquiry of those who have devoted much time in public institutions, and in dispensary practice, confirms our own observations, that wet-nurses always find a demand for their services. The applications for wet-nurses at our Lying-in Institutions often, indeed, greatly exceed the supply. There can be no doubt, therefore, that wet-nursing is more customary than Dr. Jarvis would believe.

The practice of wet-nursing grows out of:—1st. The inability of the mother to discharge her maternal duties; and, 2d. Either false pride, or an indisposition to be burdened with the care of her offspring. Both of these conditions exist in this, as in all large cities, and we are not a little surprised that an educated physician should have failed to recognise them. The first unquestionably renders the practice, to a limited extent, a necessity; the second springs from that social refinement which sets at naught all natural laws, and renders life, as far as possible, entirely artificial. The former of these causes, we are inclined to believe, leads to the employment of the wet-nurse in the majority of instances in this community, though the latter exerts an influence to no inconsiderable extent.

We have before us a paper on "The Practice of Hiring Wet-Nurses considered as it affects Public Health and Public Morals," which was presented to the "National Association for the Promotion of Social Science," England, in 1859, by M. L. BAINES. The evils of wet-nursing are here presented in a two-fold light: 1st. Moral and Social, and 2d. Physical. The former grow out of the employment of fallen women, a practice urged by a class of philanthropists, but which cannot be too severely condemned, not only on account of its immoral tendencies, but also of the physical evils that are liable to be entailed upon the nursing by the imbibition of constitutional proclivities to disease. The latter evils result both to the child of the nurse, which is either put out to an inferior nurse, or is hand-fed; and to the child which she assumes to nurse, owing to its deprivation of maternal milk. It is stated by this writer that, "It may be fairly assumed that the children of wet-nurses form a very large proportion of those who die prematurely." We are not prepared to indorse this, as a general statement, but we have the most undoubted proof of the great mortality among foundlings in this city; while they were put out to nurse, nearly one-half died annually. It appears also that out of every one hundred children in Paris, nursed by their mothers, eighteen die the first year, while of those wet-nursed, twenty-nine die.

The practice of employing wet-nurses, therefore, can but be considered an evil, and one which is destined doubtless to increase in the ratio of our increase in wealth and luxury. What is the remedy? The entire responsibility of resisting its progress rests with the medical profession. We should endeavor to remove the causes of the evil, by inducing mothers to rear their own children by the means that nature has given them. The arguments which may be employed are too strong to be resisted, if kindly, conscientiously, and firmly presented by the medical attendant. If this duty were thoroughly discharged, in every instance, the system of wet-nursing would at once fall into disrepute, and the custom would truly become what Dr. Jarvis represented it, "almost unknown" in this country. In the comparatively few cases where the mother is absolutely disqualified, it is still a question if artificial lactation, in the

hands of a competent nurse, might not be preferable to wet-nursing. But admitting that the wet-nurse must be obtained, the physician is still the adviser, and has it in his power to make the selection. And here occurs an important duty, which is almost invariably overlooked; if the wet-nurse has a child of her own, it is liable to be put aside without a care, or even thought, on the part of the employer. The physician should remember that, in providing a nurse for his patient, he is not less responsible for the life of the helpless human being which is set aside, and should insist that it be properly provided for.

We have done little more than open this subject, but if we have succeeded in impressing upon even a single physician the importance of discharging a duty long neglected, our purpose has been accomplished.

THE WEEK.

WE have received the announcement of the managers of BRIGHAM HALL, A HOSPITAL FOR THE INSANE, located at Canandaigua, N. Y. This institution "is designed for the accommodation of patients of the independent class, a class for which no adequate provision has existed in the State." It is under the medical supervision of Drs. GEORGE COOK and JONAS B. CHAPIN, men of ample experience in the treatment of the insane. Since its organization it has received 166 patients, of whom 49 recovered, 40 improved, 19 unimproved, 10 died, 48 remain. We are glad to learn that this enterprise gives fair promise of success. It commends itself to the medical profession of the State as an institution to which they can direct those insane patients who have means for support, but who need the care and restraint of an asylum.

Medical men justly deplore the ignorance of the public as to the distinctions between true and false systems of medicine. Let us suggest a simple and effectual method of enlightening the popular mind. During the winter, when popular lectures are so well attended, let the country physician engage to give a series of lectures in his village lyceum, tending to instruct his neighbors in those general principles which underlie scientific medicine. We are satisfied that physicians may thus not only make themselves useful by the instruction they give, but may establish on a firm basis, in the communities where they are located, the claims of legitimate medicine. The following extract, from the *Angelica Reporter* (N. Y.), gives an instance in point. The lecturer was Dr. C. M. Crandall, of Belfast, and his lecture is thus flatteringly noticed:—

"His aim," says the *Reporter*, "was, on this occasion, to exhibit the absurdity of the theory of that sect of medical practitioners known as homœopathsists, and to our mind he was entirely successful. We cannot here introduce the proofs in support of his subject; suffice it to say, they were authentic and convincing, while his arguments deduced therefrom were clear and forcible. The lecture was well written, showing evident marks of scientific learning, and much research in medicine. It was likewise well delivered and entertaining, both in its style and subject matter. The Dr. closed with a few eloquent and exceedingly well-timed remarks, commendatory to the regular medical profession—in which he said substantially, that they were in no sense sectarian—they claimed no one-idea theories, neither did they adhere to the doctrines of any particular man of their profession; but, he was proud to say, they gathered good, so far as practicable, from everything under the sun."

The New York County Medical Society held a monthly meeting January 19th, Dr. Bulkley, President. There was a large attendance. On taking the chair, the President delivered an introductory address, defining the past and present position of the Society. A paper was then read on the Pathology of Tetanus, by Dr. W. M. Thomson, which has now appeared in our columns. It is proposed hereafter to hold monthly meetings for the discussion of scientific subjects. It will gratify the friends of county medical societies, to learn that the New York County Society, so long idle as to have become almost obsolete, has shown such evidences of vitality. Let it emulate the example of the Kings County Medical Society, now one of the most useful and influential societies in the State.

Reviews.

MALADIES DES FEMMES: LEÇONS CLINIQUES, par GUNNING S. BEDFORD, A.M., M.D., Professeur d'Obstetrique, de Maladies des Femmes et des Enfants, de Pratique des Accouchements, à l'Université de New York; traduit de l'Anglais, sur la 4me édition, et suivi d'un Commentaire Alphabétique, par PAUL GENTIL, Docteur en Médecine de la Faculté de Paris, Ancien Chirurgien et Médecin des Hôpitaux Civiles et des Prisons, etc. Paris, 1860. pp. 658.

CLINICAL LECTURES ON THE DISEASES OF FEMALES, by GUNNING S. BEDFORD, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children, etc. Translated from the 4th English edition, with a Commentary, by PAUL GENTIL, Doctor of Medicine of the Faculty of Paris. Paris, 1860. pp. 658.

WE have had frequent occasion to notice Prof. Bedford's *Clinical Lectures on the Diseases of Women and Children*, as the work passed rapidly through its six successive editions in this country. Although the colloquial style of much of the work tended to excite criticism, still it met with more general favor from reviewers than any recent medical publication with which we are acquainted. That it was well received by the profession, these numerous, rapidly issued editions sufficiently prove. Nor was the American Medical press alone in its favorable comments, but the English press contributed to its popularity by the most flattering notices.

Successful as the work has been at home and abroad, we were not prepared to see it achieve a success exceedingly rare in the history of American medical authorship, viz. a translation into the French language. But the work before us proves the fact. We congratulate the author upon this high compliment paid to his labors in the still new field of uterine pathology, where so many struggle vainly for reputation.

The translator, Dr. Gentil, dedicates his work in the following terms, to the memory of his intimate friend, one of the most eminent French surgeons—AMUSSAT:—*Il m'éclaira souvent de ses conseils, il m'honora toujours de son amitié.* In the cursory examination which we have given the volume, we judge that the translator has construed the text literally, adopting in full the colloquial style, which, indeed, is well adapted to the French mode of clinical teaching. Very few notes are found accompanying the text, but forming a supplement, or, as the author terms it, *commentaire alphabétique et complémentaire*, we have upwards of two hundred pages of new matter. In this part Dr. Gentil has taken up individual subjects in alphabetical order, referring to the page of the work where they have been treated, and discusses them at length in their bearing upon French obstetric medicine. His annotations give evidence of scholarship, and a full appreciation of his subject.

In concluding this notice, we may add, that while this translation is the highest possible acknowledgment of the value of the author's labors, it secondarily reflects creditably upon the rising importance of the American school of medicine.

THE HALF-YEARLY ABSTRACT OF THE MEDICAL SCIENCES.
Edited by W. H. RANKING, M.D., and C. B. RADCLIFFE,
M.D. Vol. xxxii. July—December, 1860. London:
1861.

BRAITHWAITE'S RETROSPECT OF MEDICINE AND SURGERY.
Part the Forty-Second. New York: W. A. Townsend
& Co. 1861.

These semi-annual publications for the last half year are unusually rich in the selections of practical matter.

Progress of Medical Science.

DIPHTHERIA.—The *American Journal of the Medical Sciences* for January, contains the prize essay of Dr. SLADE of Boston, on Diphtheria, to which the Fiske Fund Prize was awarded, July 11, 1860. The author first gives Bretonneau's description of this disease, and compares it with the various epidemics that have at different times prevailed throughout Europe and America; points out the distinction between diphtheria and croup, and its non-identity with scarlatina; discusses at some length its pathology, the question of infection; comments upon the presence of albumen in the urine, and its signification; and finally arrives at the following conclusions:

"1. Diphtheria is a specific disease. This fact is shown by its origin, its progress, its manner of termination, and its sequelæ. 2. Its diagnostic sign is the formation of an aplastic membranous exudation upon any portion of the cutaneous or mucous surface which is exposed to the contact of the atmosphere. 3. It is propagated by infection and contagion, and is both epidemic and sporadic in its invasion. 4. Its characters plainly indicate that it belongs to the category of *blood diseases*. 5. It is not allied either to cynanche trachealis or scarlatina. 6. The treatment is to be directed to the control of the exudation, and to the support of the constitution by means of tonics, stimulants, and a nutritious diet."

As we know of no specific capable of arresting the disease, our aim must be to conduct the patient safely through it. For this purpose he commences by insisting strongly upon the observance of certain hygienic rules, as cleanliness of person and surroundings, and ventilation, excluding the well members of the family, especially children, from the sick-room, etc. As an external local application in the very early stages when there is much heat or engorgement about the throat, cold, wet compresses may for a time give relief, but should give way to warm fomentations, and emollient applications as the disease progresses. As the principal indication is to support the powers of life from the first, neither leeching, local bleeding, nor purging is to be thought of, except in some very rare instances. If thought advisable on account of early croupal symptoms to commence the treatment with an emetic, a full dose of ipecac is preferable, the bowels being moved by simple enemata or some mild laxative. Stimulants and nourishment should be commenced with early and steadily persisted in, either by the stomach or in the form of enemata, in such quantities and at such intervals as may suit each individual case. Among the tonics for internal administration, quinia, iron, and chlorate of potash seem to promise the greater chance of success, of which the tinct. of sesquichloride of iron seems to be preferred by a majority of practitioners in doses of from ten to fifteen drops in water, every three or four hours. Quinia may be given in mixture, with or with-

out dilute hydrochloric acid, or in the form of a pill in doses to suit circumstances; or if chlorate of potash be preferred, it should be in doses of from four to eight grains in some bitter infusion, with from two to five drops of dilute sulphuric acid. The experience of most medical men of the present day bears witness to the efficacy of local applications to the throat, and among the multitude of substances employed for this purpose, nitrate of silver, thirty to sixty grains to the ounce of water, tinct. ferri chloridi, and the hydrochloric acid seem entitled to special confidence. They may be applied with the sponge probang, or what is better for children, with a full size camel's-hair pencil. The nitrate of silver should be applied every three or four hours; the acid may be used at long intervals in full strength, though, in the case of children, the addition of a little honey is desirable. A solution of the chloride of soda in the proportion of one drachm to six ounces makes a very efficacious gargle for correcting the fetor of the breath and secretions of the throat; and the same may be said of the chlorate of potash in combination with hydrochloric acid and tincture of sesquichloride of iron. Among other local applications are mentioned strong solutions of sulphate of copper, the chloride of sodium, alone or with vinegar, gargles of tannin, capsicum, etc., and Monsell's salt, in powder. When the nasal fossæ have become implicated, a solution of the chloride of soda, two drachms to eight ounces of water, with the addition of two ounces of glycerine, may be injected through the nostril, also frequent injections of warm water and soap. If, in spite of all means of treatment, the disease progresses, and the larynx and trachea are invaded by the exudation, the question of tracheotomy arises. After carefully examining the statistics, the author's views are unhesitatingly in favor of the operation; not when the patient is moribund, but "so soon as we feel that our remedies are too tardy to overtake the disease." In the management of this operation, a large opening should be made in the trachea, and a tube introduced of sufficient calibre to admit an adequate supply of air. The patient should then be supplied with a warm moist atmosphere, and a reliable person intrusted with the duty of keeping the tube free. Medical treatment should be continued, and injections of nitrate of silver thrown into the trachea will often be followed by beneficial results. The author concludes the paper with a brief summary of the treatment recommended by some of the principal practitioners of Europe.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK

FIFTY-FIFTH ANNUAL MEETING.

The Society met pursuant to statute at Albany, on Tuesday, Feb. 5, at 11 A.M.

The President, DANIEL T. JONES, M.D., delivered his inaugural address. After thanking the members for the honor conferred upon him by his election to the office, and alluding to the prosperous condition of the medical profession throughout the state, he offered a suggestion, that the Society should be divided into two separate sections, termed "Medical and Surgical," which should meet during the afternoon and evening, and that all business be transacted only during the morning session. He thought that the adoption of this plan would give ample time for the discussion of all the papers presented.

The following gentlemen were appointed as a *Committee on Credentials*:—Drs. S. D. Willard, M. M. Marsh, and J. C. Adams; and the following to compose the nominating committee:—1st Dist. Drs. J. McNulty; 2d Dist. W. A. Carrington; 3d Dist. T. C. Brinsmade; 4th Dist. Hiram Corliss; 5th Dist. A. Van Dyck; 6th Dist. C. S. Wood; 7th Dist. Chas. Van Anden; 8th Dist. C. E. Gay. Several

of the delegates from the State Medical Society of Connecticut being present, Dr. March offered the following:—

Resolved, That the State Medical Society of Connecticut be invited as guests of this Society, and that the secretary be authorized to provide suitable quarters for them at Congress Hall.

On motion of Dr. March the Committee of Credentials were empowered to invite medical gentlemen who might be in attendance to seats in the Society.

Dr. BRINSMADE moved that eight delegates, two from each censorial district, be nominated by the Nominating Committee to represent the Society at the next annual meeting of the State Society of Connecticut, to be held at New Haven on the fourth Wednesday of May next. Adopted.

Dr. BRINSMADE also offered the following, which was adopted:—

Resolved, That a committee of three be appointed to take into consideration the suggestion offered in the President's address.

Dr. L. B. COATES presented the following preamble and resolutions:—

Whereas, The subject of the establishment of a State "Commission of Lunacy" has been in agitation by the Society for the last two years, and that it requires certain legislation for its accomplishment; and

Whereas, A bill is now before the Senate waiting further opinion of the profession in relation to its merits; therefore,

Resolved, That the State Medical Society at its annual meeting recommends prompt action of the Medical Committee in the Senate in reference to obtaining the final passage of this bill; and that the members of the Society, now present, use their influence individually with the respective members of the Legislature of their acquaintance to effect this object.

Resolved, That a committee of three be appointed to meet and confer with the Senate Committee at their meeting to be held to-morrow afternoon, and present these resolutions, signed by the President and Secretary.

These resolutions were adopted, and the following gentlemen constituted the committee:—Drs. L. B. Coates, Abraham Hawn, and C. B. Coventry.

Dr. VANDERPOEL next offered the following, which was duly accepted:—

Resolved, That a committee of three be appointed by the chair to invite medical gentlemen of the Legislature to seats as honorary members of the Society. Adopted.

The committee consisted of Drs. Vanderpoel, C. S. Wood, and U. Potter.

On motion of Dr. March, Dr. L. D. Seldon, of New York, was elected an honorary member.

The Report of the Treasurer, Dr. Quackenbush, was next read, which showed that the receipts for the last year amounted to \$216 15; the expenditures to \$71 74; leaving a balance on hand of \$144 41. Drs. Corliss, Bly, and H. Adams were appointed a committee to audit the account, and after due consideration reported favorably.

The committee on the President's address were next appointed, consisting of Drs. Brinsmade, Griscom, and Beattie.

Dr. J. G. ADAMS presented a communication from the New York Academy of Medicine, embodying the Preamble and Resolutions relating to the publication of the proceedings of medical societies in non-medical newspapers, which was passed by that body on the 10th of January last, and which we have already published. Referred to Committee on Publication.

SINGLE PLACENTA IN A CASE OF TWINS.

Dr. J. V. P. QUACKENBUSH presented an interesting specimen of single placenta. He was called to the case of midwifery about an hour before, and delivered the woman of twins. The unusual points about the case were:—1. A single placenta. 2. A common envelope, a single chorion and single amnion for both children. 3. The insertion of the two umbilical cords almost together. 4. The length of each cord, which was 47 inches. The placenta was 9 inches in length.

REPORT ON MEDICAL EDUCATION.

Dr. HOWARD TOWNSEND presented the Report of the Committee on Medical Education. After recapitulating what has already been done in several of the state societies, and in the American Medical Association, in reference to the subject, or more particularly in reference to a second

degree in medicine, he stated that though the committee was nominally appointed to report upon so much of Dr. Brinsmade's Inaugural Address as relates to conferring a second degree, the very words of his address would allow the committee to report "upon the means of elevating the standard of medical education," rather than restrict themselves to the subject of a second degree. Reviewing all action which has thus far been taken upon the subject, both in the National Association and in the different state societies, it would seem that the idea of a second degree has not been entirely acceptable to the profession, and in this view the committee fully concurred. To those who have had any experience in medical teaching in our country, it will be quite unnecessary to say that the whole stress of elevating the standard of medical education being laid upon the second degree, seems like insisting upon attention only being paid to beautifying and adorning an edifice, whose substructure and solidity may have been entirely neglected.

Without attempting to depreciate the advantages of finish and polish which would result from a second degree, the committee felt that these would avail little or nothing unless based upon a thorough and well established first degree. In reference to the argument of a second degree in medicine being necessary, because of a similar one being already established in the professions of divinity and law, it must be remembered that in these it is merely honorary, a few only obtaining it. Yet doubtless conferring it upon these few has an elevating effect. But just now in medicine, there is more urgently needed the adoption of some system which would insure a more thorough education for the mass of the profession; some course obligatory for each individual to pursue, not left to his option, before he could obtain the degree, which end the committee think could only be obtained by insisting upon a more severe ordeal of study, and more thorough and rigorous examinations, before a candidate can be admitted into the ranks of the profession. As regards the argument of the necessity of a second degree because of so many irregular practitioners having assumed the title *Medicine Doctor*, to refute it, it will be only necessary to ask why, if the first degree has been so freely seized upon, may not the second and higher degree be equally easily and freely assumed? The committee deem the old and well established degree *Doctor in Medicine*, the proper fulcrum to rest the lever with which to elevate the standard of the profession. But the requirements for this degree must be just such as are needed to insure a thorough and accomplished medical education; and the examinations which are to determine how far these requirements have been attained, should be most severe, thorough, and impartial, and the examinations should be conducted only by such members of the profession as might be selected because of their being the most competent.

It should be first insisted upon, that all commencing the study of medicine should sustain an examination to prove that they possess at least the basis of a good English education; a sufficient knowledge of the sciences to enable them to comprehend the principles of their application in anatomy, physiology, and therapeutics; and such a knowledge of the ancient and foreign languages as is essential to aid them in their studies, and enable them to comprehend a prescription when written in Latin. In reference to the course pursued at the schools, it should be most thorough. The time passed at the Lectures should be longer, instead of terms of four and five months. They should, as in literary and scientific colleges, continue throughout the year, excepting eight or ten weeks for vacation. Not more than four lectures a day, because, if more are attended, there will not be time enough for study of disease, where it can only be properly studied, at the bed-side in the hospital, or study of practical anatomy and chemistry. There should be daily examinations in all the colleges to refresh the memory, and to inculcate habits of reflection and study. The final examination for the degree should be conducted by a Board of Examiners, of able and competent men selected from the

profession at large, there always being a representation from the medical schools. This Board to be appointed by the state societies or the American Medical Association. The whole success of the plan will depend upon the appropriateness of those selected for this Board; appropriateness as regards high moral character, intellectual ability, and general as well as medical attainments and culture. These thorough examinations will also exercise a beneficial influence upon the medical schools themselves, for the result would be to encourage greater efforts on the part of the different schools to prepare the candidates whom they may send forth to the final examination, so that failure on the part of those candidates would be the exception to the rule. Whereas now, too often the contrary obtains, the examinations being purposely superficial to swell the list of graduates. Now the rivalry is for members. Under the new arrangement it would be to send the best prepared; which necessity would incite the most laudable efforts on the part of both professors and pupils.

Without doubt, the advancement of the science of medicine depends upon the genius and skill of those engaged in its pursuit; yet for its ultimate welfare and promotion we must look to well established institutions for the dissemination of medical knowledge. The lower the standard of education is among medical men, the greater the number of ignorant applicants for professional honors; and it matters not how many or how few may be the degrees determined upon, there will be no actual advancement or elevation of the standard of medicine unless the reform commence with the course of education itself, instead of with the degrees conferred, which degrees, like the coin stamp, may be impressed upon the base metal as well as that which has the true ring of gold.

DR. VANDERFOEL moved that the Report be forwarded to the American Medical Association as an expression of the sentiments of the Society.

USE OF MERCURIALS IN ACUTE PERICARDITIS.

DR. VANDERFOEL presented a paper having for its subject The Use of Mercurials in Acute Pericarditis. The author was inclined to believe that therapeutics did not keep pace with our expanding views of pathology, and that this was more especially the case in the use of mercury in the disease under consideration. After quoting the views of Hope, Latham, Fuller, and others who favor the employment of mercury as a remedy, he maintained that the principle upon which their treatment was founded was altogether erroneous. Not only was the analogy between iritis and pericarditis fallacious as far as the effects of treatment were concerned, but the order in which the symptoms occurred, and the nature of the efforts for recuperation in the latter disease, contra-indicated the use of any depressing agent.

DR. J. G. ADAMS made a communication from Dr. T. G. Thomas, Physician to Bellevue Hospital, of a remarkable case of

SUSPENDED ANIMATION.

On the 30th of January, 1861, while visiting the wards under my supervision in Bellevue Hospital in company with Drs. Segur, Fernandez, Deroset, and Fisher, house physicians of that institution, and a class of fifteen or twenty students, my attention was called to the case of a young woman, about twenty-three years of age, who was suffering from epileptiform hysterical convulsions of the most violent character. She had been in the hospital over a year, laboring under partial hemiplegia and convulsions, of the nature of that in which I then saw her, which occurred quite frequently. Upon inquiry, I found that the existing convulsive seizure had, at the time of my visit, lasted about three hours, and as it was then extremely violent, I determined to quiet it by the anæsthetic agency of chloroform. The drug employed was Pheisser's. Pouring about a half drachm upon a small towel, I administered it very cautiously, holding the pulse and watching the respiration very closely. After the patient had inhaled it for about two

minutes the convulsion ceased entirely, but observing that the pulse was a little irregular, I removed the towel until it resumed its regularity, then again pouring on it about half a drachm I allowed her to inhale it, keeping the towel at some distance from the face. After about four or five minutes had elapsed from the commencement of the administration, and when not more than two or three drachms of chloroform had been used, I observed the pulse and respiration to cease suddenly, the lower jaw to relax, and the eyes to become glassy and fixed. Removing the towel from her face laid my head upon the cardiac region and found that the heart's action had entirely ceased, and that not a particle of air was entering the lungs. The woman was dead. Instantly tearing open the front of her dress, I dashed cold water upon her face and chest, admitted a strong draught of cold air, applied ammonia to the nostrils, and forcibly compressed the abdomen and chest walls; but without one sign of returning animation. Throwing the pillows and clothing from the bed, I then seized the body by the shoulders, and practised Marshall Hall's method of artificial respiration, sending at the same time for a galvanic battery, and having the legs and spine rubbed vigorously by the students with aqua ammonia. These means, however, which I considered as minor ones, were not allowed to interfere with the continuous performance of the respiratory process. This was kept up for twenty minutes without a sign of life appearing to reward and encourage our efforts; and then, so satisfied was I that a calamity that I had long dreaded had occurred to me, that I turned to the class and stated that now I persisted in my efforts against all hope as the patient was surely dead. At the end of twenty minutes, by which time I was becoming much fatigued by my efforts in rolling the body, Dr. Segur, who held the pulse during the time, stated that he felt it flutter, and upon my requesting Dr. Kennedy to examine the other wrist, his statement was corroborated; now and then, something like a beat being detected. I need not state, that every effort was now renewed, and redoubled, and in a few minutes a succession of beats was discovered, and the ear placed upon the chest revealed the fact that the heart was slowly but surely resuming its function. No voluntary respiratory effort, however, had yet occurred. The battery being now ready for action, I had it applied (the ready method still being kept up incessantly) to the pectoral muscles, to the neck, over the diaphragm, and in fact passed the poles all over the chest. Instantly the muscles jerked, as if in convulsion; the eyelids flew open, the head was jerked back, respiration was soon established, and in ten minutes more I had the inexpressible satisfaction of seeing the patient out of danger.

Under certain circumstances, time passes so heavily, that a mere estimation of its lapse is utterly unreliable. Into this case, no such error has crept to impair the integrity of the history which I have related, for Dr. Segur examined his watch, (as I did likewise, one of the students, Mr. Craig), is positive as to the exact time, and it is upon this authority, that I state the duration of complete suspension of animation as being twenty minutes. The recovery was entirely due to Marshall Hall's method; the other means adopted, having only aided this in the accomplishment of the result, in which it was chiefly instrumental. My object in offering this case for publication, is not to demonstrate the already well known fact, that Chloroform often proves dangerous, an anæsthetic; but to place on record an instance which proves the propriety of persevering with restorative means, even after all reasonable hope has vanished. Had I ceased my efforts after continuing them for over a quarter of an hour fruitlessly, who would have blamed me? And yet, such cessation would unquestionably have lost the life of the patient. I would also remark, that had the galvanic battery been waited for, and inefficient means allowed to consume the first five or six minutes succeeding the suspension, recovery would have been out of the question. My belief is, that the immediate and persistent use of means for the establishment of artificial respiration, is the

most certain method at our command, for warding off the fatal issue of such cases. Of this I have fully satisfied myself in many cases of asphyxiated neonati, and it was the remembrance of these which led me to continue my efforts so long here. Upon visiting the wards upon the day following the occurrence which I have related, I made an examination of the heart of the patient, and discovered (what I should have informed myself of before administering chloroform) that there was a distinct bruit, with both sounds, loudest at the base, and probably due to roughness and insufficiency of the aortic valves. In conclusion, I must add, that the promptness, coolness, and efficiency of the gentlemen of the house staff, who were with me, proved of great assistance, and contributed largely towards the successful issue of the case.

INVERSION OF UTERUS.

Dr. A. VAN DYCK reported a case of complete inversion, of the uterus. He was called on the 13th of June, 1859—to see a German woman, æt. 28, who had just given birth to her first child. She was attended by an ignorant midwife, who sent for him, fearful that the whole of the after-birth had not come away. Dr. Van Dyck examined the placenta and found it entire. The uterus seemed very well contracted, as was also the case with the os. She suffered considerable pain in the abdomen, which was relieved in the course of a day or two by an anodyne and the administration of castor oil. Nothing unusual occurred until the 21st, when the doctor was summoned in haste to see her. She was sitting upon the stool, with the womb completely inverted, situated between her thighs, and about the size and shape of a goose egg. She was immediately placed upon her left side, her knees drawn up, and with his right hand the doctor grasped the tumor—the fundus resting upon the palm—when firm pressure was made, and the organ began to ascend. The hand was then carried into the vagina and lengthened, by straightening the thumb and fingers into a conical form; the fundus was dimpled, and thus carried through the os and cervix to its natural situation. The organ soon contracted, and the hand was gently withdrawn. The case was interesting in two particulars. 1. Partial inversion was produced at the time of delivery, and continued to progress until the eighth day after the confinement, when a little straining rendered it complete. 2. The suffering, notwithstanding this state of things, ceased on the third day, which circumstance was accounted for by supposing that at that time the uterus had so far descended into the vagina as to render further spasmodic contractions unnecessary.

Dr. SAYRE's motion that the report of Dr. Ranney, with the amendments he suggests to the bill before the Legislature on Lunacy Commissioners, be accepted and presented to the Legislature as the sense of the society, was adopted.

Then a resolution was offered to allow Dr. Bulkley to present the subscription for the Westminster monument to John Hunter. Adopted.

Dr. BISSELL, of Utica, presented a very valuable and practical paper on Endermic Mediation. Indicated when the stomach is irritable, or it is necessary to prevent its derangement, as in cholera infantum, cholera morbus, typhus fever, &c. His method of dermic introduction recommended was to wash the skin first, then envelop with cotton batting saturated with warm solutions or tinctures, over that piline or oiled silk, the former preferred. He advocated very ably, with report of several cases, this mode in cholera infantum.

Dr. SQUIBB then presented the report of the Committee on Adulteration of Drugs. This masterly report secured the undivided attention of the Society; and the important practical suggestions for counteracting, were loudly applauded. He also presented the report of the Committee on Pharmacopœia revision. A resolution of thanks was offered, when Dr. Sayre made a motion that Dr. Squibb's expenses in attending the sittings of the revision committee be repaid. Carried.

Dr. DOWNS read a paper on a case of poisoning by corro-

sive sublimate, showing the inefficiency of the legislative enactment against the sale of poisons.

Dr. FINNELL then presented a paper on a case of suicide by wounding a small branch of the sup. thyroid artery. He also presented the list of all the members of the New York County Medical Society from the time of its organization.

DOMESTIC CORRESPONDENCE.

ALBANY.

Feb. 6, 1861.

THE State Medical Society opened its fifty-fifth Anniversary at the City Hall, Albany, yesterday morning. Permanent members and delegates have already registered their names, and entered upon the business of the session. The President of the Society, Dr. DANIEL T. JONES, offered a brief and sensible address. He suggested an improvement in conducting business, which has already been shown, in the progress of affairs, to be of practical importance, viz. a division into medical and surgical sections. Voluminous papers, special reports, and a great variety of resolutions, with discussions that might be interminable but for the faithful attentions of the Professor of Brevity, as one of the older members is facetiously denominated.

A great variety of papers and reports have been presented, and a still larger number are yet unread.

The opening hour of the afternoon session having been allotted to Dr. C. A. LEE, for the presentation of his views upon the inversion of the uterus, the Society patiently listened to his extended account of the noted Chicago case, in which the Doctor was called as an expert. He very unnecessarily reiterated his well known opinions respecting that case, charging the attending physician with negligence and mal-practice. That this subject was not acceptable to the members was evident; and upon a suggestion from the jocular Professor of Brevity, the Chicago case and its champion gave way to more important business. Dr. SWINBURNE then read a practical paper upon Simple Extension in all kinds of Fractures. That young surgeon evidently possesses the proper inventive and mechanical tact for good surgery. I notice that the stenographic pencil of one of your staff editorial is busy taking notes, so I need only give your readers a general view of what is going on. The question having been raised, as to what degree of extension or force may be borne without completely separating the fractured ends of bone, Dr. Bly, of Rochester, related the results of his experiments to demonstrate the degree of extensibility of muscular tissues in the limbs of dead animals. He claims to have produced in the leg of a dead sheep an extension of its muscles amounting to half an inch. The older and more experienced surgeons very kindly reviewed and criticised the peculiar hobby of the paper; and finally, its author found it very difficult to defend his *exclusive* practice of simple extension. Indeed, upon inquiry, the fact appeared that even Dr. Swinburne resorts to *lateral* support to the fractured limb in particular cases. The faithful analysis to which the interesting surgical question was subjected by Dr. JAMES R. WOOD, constituted the most interesting event of the first day's session. Close attention was given to his remarks, which seemed to satisfy the obvious desire of all classes of practitioners who fear the misapplication of *judicial* inquiry and prosecution for the correction of faults in surgery. It is too manifest that so long as conceit boasts itself against accurate knowledge and common experience, lawyers and their deformed clients will surely make game of the best surgeons.

The veteran surgeon, Professor March, opened the discussions of the second day, presenting the results of his experience upon compound, comminuted, and complicated fracture of the upper end of the tibia. Thus surgery, and the casualties of childbirth, have inaugurated the session. Next comes the subject of suicides, with a statistical contribution by Dr. J. G. ADAMS; committee on Medical Hydrography and Systematic Drainage, by Dr. E. HARRIS.

F. F.

Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE III.

TO-DAY, gentlemen, we begin the examination of the seventh pair, or the facial. The facial nerve was considered by the older anatomists as belonging to the same pair with the auditory, for the reason that they both emerge from the substance of the brain very near each other, that they take the same course, and leave the cranial cavity by the same foramen, viz. the meatus auditorius internus. This foramen is situated on the posterior surface of the petrous portion of the temporal bone. The two nerves run side by side from within outward, and enter the same foramen together. Thus far they are associated as a single pair. But they have also certain characters which distinguish them from each other. From the difference in their consistency alone the facial has been called the portio dura, and the auditory the portio mollis. Then again, the distribution of the two nerves is different. The facial, instead of terminating, like the auditory, in the petrous portion of the temporal bone, enters a canal of its own, the aqueduct of Fallopius, and thence follows a zigzag course until it emerges upon the side of the face, by the stylo-mastoid foramen.

There are several curious points in the anatomy of this nerve, as it passes through the aqueduct of Fallopius. In one of the specimens which I have here, the irregular, zigzag course of the facial is very well shown. It first runs from behind forward and from within outward, then makes a very sharp elbow-like turn, and takes a course from within outward and before backward, then, turning from above downward it finally reaches the situation of the stylo-mastoid foramen, and thus emerges from the interior of the cranium upon the side of the face. Such is the history of the facial nerve during its course through the substance of the petrous portion of the temporal bone. Then, having emerged from the foramen which I have mentioned, it runs first from above downward and from behind forward, and penetrates the substance of the parotid gland, where it breaks up into several different bundles, or branches. The arrangement of these branches, and their separation from each other, and at the same time their mutual connexion, present an appearance which is known as the *pes anserina*, or the goose's foot. This appearance you will see in the preparation which I now show. You observe the emergence of the nerve at the stylo-mastoid foramen, its passage from behind forward, and its separation here into four principal divisions. The first is a division consisting of fibres which run from below upward, and are distributed to the muscles of the external ear; the second is a bundle passing from behind forward and upward, to be distributed to the orbicularis oculi muscle. The third passes from behind forward, and is distributed to the superficial muscles about the anterior and middle part of the face. The fourth runs from behind forward and downward, to be distributed to the muscles of the lower part of the face. Here then you find that the facial nerve, so far as regards its distribution, is evidently to be considered a muscular nerve. Unlike the first and second divisions of the fifth pair, which we examined yesterday, this nerve sends its filaments to the muscles of the face, and the muscles only; and unlike the third division of the fifth pair, which was partly distributed to the deeper-seated muscles and to the teeth, this nerve supplies the *superficial* muscles,

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those, viz. which close and dilate the orifices of the face. So much, then, for the anatomy of this nerve.

Let us see what can be ascertained with regard to the physiological character of these filaments. You will remember the method which has been adopted in every instance as yet to demonstrate the properties of any nerve. When we expose a nerve, in a living or recently killed animal, and irritate it, we excite either a painful sensation or a convulsive movement in the parts to which it is distributed. When we divide the nerve, we see what nervous properties are destroyed by that procedure. It has been found, with reference to the facial nerve, that if it be irritated in any part of its course, one effect is invariable; convulsive movements produced in the superficial muscles of the face. I have very frequently noticed, in operating upon this nerve, that when separate branches of it are irritated particular muscles will be thrown into convulsive action;—the muscles about the eye, about the ear, about the nose, and about the lips.

The facial nerve may be readily divided in the dog, cat, rabbit, and several other animals. All that is necessary to do, to divide it in the cat, is to make an incision from above downward and from behind forward, immediately behind the external ear, then reach the posterior edge of the parotid gland, lift this up, and continue the dissection underneath it, until at last you find the situation at which the branches of the nerve are passing forward. These branches can be followed backward to the stylo-mastoid foramen, and all the filaments divided at that point. In this cat, this operation was done a few hours ago. Now, the consequence of this division is a loss of power over the superficial muscles of the face. These muscles are the orbicularis oculi, dilators and constrictors of the nares, buccinator, orbicularis oris, and the levators and depressors of the lips. We can ascertain the existence or loss of muscular power in these parts by irritating the integument in various ways. For you will recollect that, so far, we have not found any sensibility in the facial nerve, but only the stimulus to motion. Now, in regard to the external ear, in the case of the human subject, the movements of that organ are very insignificant, and its muscles consequently are so slightly developed, that it is with some difficulty that they can be distinguished in an ordinary dissection of the parts. But in many of the lower animals, the movements of the external ear are exceedingly vigorous, varied, and extensive, and consequently the result of a division of the nervous filaments which supply these muscles is equally important. The cat is an animal particularly well adapted to illustrate this point, as its ear is exceedingly sensitive to any impressions made upon the integument. All we have to do is to irritate the posterior surface of the ear, and you perceive a violent twitching taking place, which in its promptness and certainty is similar to the act of coughing in the human subject, when the mucous membrane of the glottis is irritated. I will irritate the ear of this animal on the right side, and you will perceive a twitch at the slightest touch, yet if I irritate the ear upon the left side, where the facial nerve has been divided, we produce no effect whatever upon the movements of the organ.

Now, by this very simple operation we prove two things; in the first place, that the power of motion over the external ear is lost, and at the same time, in a way that I shall explain in a moment, that there is nevertheless no loss of sensibility. This, you will observe, is a very important point. When we divide a nerve going to a particular region, we wish to ascertain if motion is destroyed, and if so, whether sensibility is destroyed at the same time; or, if sensibility is destroyed, whether the power of motion remains. Now, how are you to determine this? In this way. You observe, if I touch the right ear, upon which side no operation has been done, the movement which takes place in consequence, is a movement of the ear, but not of the head. The animal keeps his head quiet, and satisfies himself by twitching the ear to avoid the pain. If sensibility were destroyed upon the *left* side, and I irritated

the ear upon that side, the animal would not show any indication of feeling. The truth is, that the sensibility of the skin remains; and although there is no convulsive twitching of the ear, we nevertheless see that the animal still feels, because he endeavors to withdraw from the irritation by moving the whole head. Here, then, we have found that after division of the facial nerve the muscles of the external ear are paralysed, and the integument still retains its sensibility. This is because the integument of the external ear is supplied by the great auricular nerve, which is a branch of the cervical plexus.

Let us next see what effect has been produced upon the eye by the division of this nerve. The eye is opened, as we found the other day, by the action of the levator palpebræ superioris. This muscle is supplied by the oculo-motorius, and consequently if that nerve be left entire the animal has still the power of opening the eye. But the eye is closed by the orbicularis oculi, and that muscle is supplied by one of the branches of the facial nerve; the power of closing the eye, then, is gone. In this cat the sensibility of the cornea and the movements of the right side are unimpaired. If, however, I touch the cornea upon the left side, where the facial nerve has been divided, there is no closure of the lids. There is, however, a certain movement which you will notice, viz. a retraction of the eye within the orbit by the action of the straight muscles of the eyeball, which shows that sensibility of the cornea still remains. At the same time that the eye is drawn back, you observe that the third eyelid, or nictitating membrane, is partly thrown across the cornea by the pressure of the eyeball at its base. The only other point which is visible in the cat is, that the orbicularis oris is incapable of complete contraction on the injured side of the mouth. On the uninjured side, the angle of the mouth is completely closed, while on the left side it hangs partially open.

Now, the effect produced in this animal by a division of the facial nerve is different from that which we saw yesterday, in consequence of a division of the fifth pair. Here is the cat upon which I operated yesterday, by dividing the fifth pair at the Casserian ganglion. You will see that the right eyeball is still very prominent, as it was immediately after the operation. You will notice that the pupil upon the right side is very much contracted. Upon the left side the eye is perfect, and retains its ordinary appearance. I show you this animal again to-day for the purpose of calling your attention to the difference in the effects of the division of the fifth and facial nerves. When I touch the anterior surface of the cornea in the animal in whom the fifth pair nerve has been divided, the eye does not close, but it is not because she cannot close it, but because she feels no desire to do so. In the other animal where the facial nerve is divided, it is easy to see that motion has been lost while sensibility remains; so in the other it is easy to prove that sensibility is lost while motion remains. If I make a sudden movement towards both eyes, you perceive that there is immediate closure of both; this, however, does not prove that there is no sensibility in the cornea of the injured side, but simply shows the sympathy which exists between the muscles of the two sides. If I cover up the sound eye, no such movement is communicated.

In the cases, therefore, in which the facial nerves are divided, we find that the result of this operation is a paralysis of the superficial muscles of the face. We find that the facial is the great motor nerve of the face, presiding over the movements of expression, as the third division of the fifth pair presides over the movements of mastication.

There is still another point to be investigated. Does the facial nerve contain any sensitive filaments? Direct examination has shown that this is not the case. For if the facial nerve be irritated during its passage through the petrous portion of the temporal bone, in the living animal, as observed by Longet and other observers, no painful sensation is felt. But that is not the case if we irritate the nerve after its emergence from the stylo-mastoid foramen, when we find that the animal suffers evident pain. Now

how are we to explain this? A series of very ingenious experiments has determined the cause of this peculiarity in the functions of this nerve. Longet and others have found that the trunk and branches upon the exterior owe the sensibility which they undoubtedly possess, not to filaments of the facial nerve, but to those which it derives from the fifth pair. This has been proved in the following way:—I have stated that if the facial nerve be divided during its passage through the long canal, the result is a loss of power in the superficial muscles of the face; but it has not been found that the face loses any of its ordinary sensibility. The skin retains its natural properties in that respect; so that while we have destroyed motion we have not affected the sensibility, and consequently the power of sensation cannot belong to the fibres of the facial nerve. It is found, however, if the fibres of the facial be left untouched, and the fifth pair be entirely divided in the interior of the cranium, not only is all sensibility of the integument and mucous membrane of the face destroyed, as we saw yesterday, but the sensibility of these very filaments and branches of the facial nerve is lost. This inosculature of the fifth pair with the facial is exceedingly important in a pathological point of view. I spoke the other day of the painful affection of the face, called *tic douloureux*, a neuralgic affection of the branches of the fifth pair. Now it is a tolerably common occurrence in this affection for the patient to insist upon it that the pain runs along the track of the facial nerve; and this occurrence is so common that it was an operation recognised among surgeons, to divide the seventh pair, for the cure of *tic douloureux*. Now this operation, whenever done, was always productive of injury. The *tic douloureux*, however, was never cured by this operation, because the sensitive fibres which were affected, still retained their connection with the brain; and worse still, there was added to the trouble, a paralysis of the muscles of that side of the face.

Another point of considerable interest, in connexion with the physiology of the facial nerve, relates to the variations of its distribution in different species of animals, and the corresponding effects resulting from its injury or division. Now I take occasion here to illustrate the anatomy and distribution of this nerve upon the heads of the lower animals. I do it because it is necessary, in order to gain any complete and proper idea of the course and distribution of these nerves, to have the dissection fresh, which is almost impossible, and certainly very difficult, to get upon the human subject. And, in point of fact, for our purpose, dissections of the lower animals are equally good, since the general structure of parts in all vertebrate animals is the same, and the nervous distribution the same. In all the higher animals, the fifth pair divides into three branches, so that for our purposes of study they answer as well as if we had the human head. There are, however, certain peculiarities connected with the physiology and distribution of portions of the nerve which are connected, not with a difference in the plan of arrangement in different animals, but with the different degrees of development of various parts. For example, I have already mentioned that in the human subject the movements of the ear are insignificant; consequently, the muscles of that part are not well developed, neither is the nerve which supplies them very large, for an obvious reason. Therefore, if we divide the facial nerve, or have it destroyed by disease, in the human subject, the paralysis of the muscles of the ear is of no consequence. The patient never moved the ear before, and never requires to do so afterwards. This is not the case, however, with some of the lower animals, in which the movements of the ear are very extensive. It is not the case with the cat, with the rabbit, or with the horse. If you watch these animals, you will see how necessary are the movements of the external ear in enabling them to appreciate the intensity and direction of faint and distant sounds. So that although the facial nerve has no direct influence on the sense of hearing, yet indirectly it is very important as assisting in the accomplishment of the function. There is another very remarkable instance, in the horse,

of the indirect influence of the facial nerve upon the act of *respiration*. The horse is, in some respects, different from other animals, that is to say, he breathes through his nostrils only. We are in the habit of breathing through the nostrils to some extent, but we also can perform respiration through the mouth. This is the case with most of the lower animals; they generally, in ordinary respiration, cause the air to pass through their nostrils merely, but when hard pushed, they can breathe through the mouth also. In the horse, however, this is different. In him the larynx and opening of the glottis are in direct relation with the posterior nares; the larynx is so high up that there is no connexion between the opening of the glottis and the pharynx, and all passage of air through the mouth is cut off by the position of the velum pendulum palati. The horse, then, is able to breathe only through his nostrils. If you will watch the animal, even when in moderate motion, you will see the nostrils dilating very energetically, at each inspiration. Now if the facial nerves on both sides be divided, the nostrils consequently cannot expand, and we have a very different kind of respiration; the walls of the nostrils fall together, the animal cannot draw the air freely into his lungs, and the consequence is, death by suffocation.

The effect of injury of the facial nerve upon the human subject upon one side, which often happens in consequence of disease, is what we know as *facial paralysis*. The paralysis of the superficial muscles produces an alteration in the expression of the face. So far as regards the eye, you will notice of course at once, that the effect of the paralysis of the facial is entirely different from paralysis of the oculomotorius. In paralysis of the oculomotorius the eye cannot be opened, in paralysis of the facial it cannot be closed. In consequence of facial paralysis, the lower eyelid falls down, all the muscles upon the affected side are relaxed, while the muscles upon the sound side are in their full vigor; consequently the features are drawn over to the sound side, and the whole face is twisted in an exceedingly unnatural manner. You will find, on examining a patient affected with this disease, that in consequence of the paralysis of the orbicularis oris muscle, the angle of the mouth on the affected side remains open and hangs downward. This produces great inconvenience in eating and drinking, but more particularly in the reception of fluids. It is found that fluids cannot be retained upon the affected side, but dribble away through the open angle of the mouth, so that whenever the patient attempts to drink, he is obliged to use the hand in order to close the mouth. Another difficulty is in mastication. The muscles of mastication move very well, but there is a peculiar difficulty which results; after a certain amount of food is masticated, it accumulates between the teeth and the cheek. For the buccinator muscle, which is one of the superficial muscles of the face animated by the facial nerve, being paralysed, does not prevent the food from crowding its way into the situation that I have referred to. These are the most marked and important consequences which result in the human subject from paralysis of the facial nerve.

There is one other very remarkable fact, however, which has attracted the attention of physiologists of late years, and which is so important that I will speak of it during the few moments which remain to us. It has been noticed in certain instances that paralysis of the facial nerve was not only productive of a loss of power in the muscles of the corresponding side of the face, but it was accompanied by a peculiar deficiency in the power of *taste*, in the corresponding side of the tongue. It has been found that patients suffering from facial paralysis upon the right side, are not absolutely incapable of tasting, but the sense of taste is very much blunted. This we can ascertain by holding a small sponge between the blades of a forceps, and moistening it with a solution of some sweet, bitter, or sour substance, and then placing it upon the superior surface of the tongue. It is thus found that while the sense of taste in the anterior part of the tongue remains perfect on the uninjured side, it is considerably blunted on the side where the facial nerve

has been divided. Now a great deal of difficulty has been experienced in explaining this curious fact. There is, I believe, however, no doubt at present, that it depends upon some influence communicated to the tongue from the facial nerve by the chorda tympani. For you remember that the mucous membrane of the anterior two-thirds of the tongue is supplied exclusively by the lingual branch of the fifth pair; and that the only communication between this branch and the facial nerve is established by the chorda tympani. The chorda tympani is a very slender filament, which leaves the facial nerve, during its course through the aqueduct of Fallopius, crosses the membrana tympani, passes from behind forward, and emerges from the petrous bone, by a distinct foramen. It then continues its course obliquely forward and downward, and joins the lingual branch of the fifth pair. I have prepared a dissection, showing the course of the chorda tympani in this head of the sheep. In the preparation you will see this nerve as an exceedingly slender filament, passing in a curved direction through the petrous portion of the temporal bone, and joining the lingual branch of the fifth pair, in front and below. What is the particular influence exerted upon the sense of taste by division of the facial nerve, we are unable to say. The chorda tympani is evidently motor in its character. Whether its paralysis acts upon the mucous membrane of the tongue, by affecting certain organic muscular fibres in its substance, or by some modification of the vascularity of the part, it is impossible to determine. The fact, however, is undoubted. Now this circumstance, taken in connexion with the anatomical relations of the chorda tympani, may be sometimes of great service in enabling us to make a differential diagnosis in cases of facial paralysis. For if we have an instance in which there is a loss of power in the superficial muscles of the face, we know that the disease of the nerve may exist in any part of its course. The nerve may be inflamed, pressed upon by a tumor, or destroyed by softening, either exteriorly to the stylo-mastoid foramen, or within the bones of the cranium. Now if we find, accompanying the facial paralysis, a want or diminution of the sense of taste, in the corresponding parts of the tongue, then we know that the origin of the disease must be deep-seated. For as the chorda tympani leaves the facial nerve in the aqueduct of Fallopius, any injury below this point will not affect the sense of taste. Hence, when this sense is impaired, the injury to the facial must be either in the aqueduct of Fallopius, or, what is perhaps equally probable, in the interior of the cranium itself.

Original Communications.

DIFFICULT OBSTETRICAL CASES,

BY GEORGE T. ELLIOT, JR., M.D.,

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CASE I.—*Retention of Menses by an Imperforate Hymen—Operation—Death—Interesting Autopsy—Also a number of Illustrative Cases.*—(Reported by P. C. BARKER, M.D., House Physician.)

"Alice —, æt. 17, born in Connecticut, of delicate organization, was admitted to Bellevue Hospital, June 23d, 1860. She never enjoyed good health from her infancy. In July, 1859, she experienced her first menstrual effort, which was not attended by any discharge. The menses have regularly appeared since, the flow never. The mother, and even physicians, to whom she applied at various times, attributed the absence of discharge to the general condition of the girl, and administered iron and emmenagogues of various kinds. These only served to increase her sufferings. After a time the periods were marked by bearing-down pains like those of labor, which progressively increased in severity, and awakened more and more constitutional excitement.

On Thursday, the 21st of June, the last effort began. She suffered more pain in the back, and the bearing-down pains were more than usually severe, keeping her awake all night. She passed water with some difficulty, and obtained a movement from her bowels. On Friday a physician was called, who prescribed something to quiet her sufferings and left. Short relief followed. Another sleepless night, no water passed. *Saturday morning.*—Two physicians called, who ordered salts and senna, and advised that she should be sent to the hospital. She was admitted in the evening (23d), having neither had a movement from her bowels nor passed a drop of water for forty-eight hours.

Symptoms on Admission.—Very restless, anxious, tossing and moaning with pain. Pulse 112, tongue slightly coated. Palpation discloses an abdominal tumor, hard and tense on pressure, and perfectly dull on percussion. Catheter introduced with little trouble, and fifty-three ounces of bloody urine drawn, after which the tumor could no longer be felt. She immediately fell asleep, and on awaking in half an hour had a very free discharge from the bowels.

The external organs of generation were not deformed, but the vagina was perfectly occluded by an imperforate hymen, rendering the introduction of the finest probe impossible. The finger in the rectum discovered that the vagina was so completely distended that no fluctuation could be detected. The accumulation seemed to fill the pelvic cavity. 12 p.m.—Sleeping quietly. 24th, 9 p.m.—Some pain in abdomen, relieved by catheterization. Thirty-three ounces of urine drawn off, which contained both pus and blood.

Dr. George T. Elliot sent for, who decided on operating after a careful examination; and in anticipation of the great danger to the patient, determined to make a very small incision, and allow the accumulation to drain away gradually. Choosing a pair of sharp-pointed scissors (by the advice of Dr. Gouley), he began to cut in the direction of the course of the vagina. The membrane was nearly half an inch in thickness. About four ounces of a tarry-looking fluid were allowed to trickle through a very small opening, when the patient was replaced in bed, and ordered Magendie's solution four drops, and oiled silk to abdomen. The administration of chloroform having produced hysterical symptoms, it was discontinued before the operation was commenced. 6 p.m.—Pulse 140; sol. morph. sulph. (Magendie) gtt. vii. 9 p.m.—Pulse 130; sol. morph. sulph. (Magendie) gtt. iv.

25th, 8 a.m.—A large quantity of menstrual fluid has drained away during the night; bladder had subsequently partially relieved itself; $\frac{3}{4}$ vj. of urine drawn by catheter; pulse 120; feels better; has passed a comfortable night; still has a little pain; sol. morph. gtt. iv. 12 m.—Pulse 112; sleeps most of the time; vagina dilated by bougie. 6 p.m.—Pulse 120; gtt. iv. 11 p.m.—Pulse 120; gtt. v.

26th, 8 a.m.—Pulse 120; has slept most of the night; $\frac{3}{4}$ xv. of urine drawn with catheter; discharge still continues. 3 p.m.—Injected warm water into vagina, to dilute the discharge, which still pours out. Nearly a quart in all must have escaped. Some pain; sol. morph. gtt. iv.; larger bougie introduced. 6 p.m.—Pulse 124; gtt. vi.; catheter regularly passed.

27th, 8 a.m.—Pain in abdomen, with nausea; some tympanitis; gtt. vi.; appetite, which has been very good, now failing. 12 m.—No pain; respiration scarcely affected; gtt. iv. 3 p.m.—Free movement from bowels, after which tympanitis less marked; some vomiting, but nothing of green color; pulse 104; gtt. vi. 10 p.m.—Pulse 128; gtt. vi.

28th, 8 a.m.—No pain, slept very well; passed water three times in the night, still not all discharged; menstrual fluid slowly coming away; gtt. iv. 6 p.m.—Has had a movement from her bowels; vagina now admits index finger; a tumor detected in the left iliac region, character of which is obscure; no pain; pulse 130. 10 p.m.—Pain, pulse 135; gtt. vi.

29th, 8 a.m.—Passed her water very well, but catheter

introduced to prevent an accumulation; pulse 120; gtt. iv. 3 p.m.—Fluctuation detected in the tumor of left iliac region. 9 p.m.—Restless; gtt. vi.

30th, 8 a.m.—Pulse 120; rather weak; vagina well dilated. 6 p.m.—Very little pain; gtt. iv.

July 1st, 8 a.m.—Comfortable, but quite weak; had a severe chill during the night, which lasted for an hour; solut. quiniæ sulph. \mathfrak{ss} ad $\frac{3}{4}$ v. $\frac{3}{4}$ ss ter in die, beef tea, eggs, etc.; pulse 125.

2d.—Vaginal injection of a warm solution of the chlorinate of soda for fœtor; pulse 120.

3d.—Injection repeated; continues much the same; gtt. iv.

5th.—No discharge from vagina; fluctuation distinct in left iliac region; urine still contains blood; treatment continued, with addition of brandy $\frac{3}{4}$ ss. every hour.

6th.—No discharge from vagina; comfortable.

9th.—There has been no especial change. Lager beer was substituted for the brandy. Two severe chills to-day, lasting an hour each; has been talking of going out of late; has been up walking in the ward.

10th.—Quinine as before; pulse 125; some pain; gtt. vi. 12 m.—Feeling better, she sat up for some time to have her bed arranged, after which diarrhœa; has had four evacuations since 8 a.m.; ordered tr. op. camph. $\frac{3}{4}$ i. after each discharge. 6 p.m.—No discharge from bowels since 1 p.m.; pulse 130, and quite feeble; brandy $\frac{3}{4}$ j. and carbonate of ammonia gr. x. every two hours. 12 m.—No pain; has had two more discharges from the bowels; tr. op. camph. $\frac{3}{4}$ j.; brandy and ammonia as before.

11th.—No further movement of the bowels; pulse 132, very feeble; stimulants continued. 10 a.m.—Sinking; pulse barely perceptible. 11 a.m.—Died."

Autopsy.—Permission obtained with great difficulty, and only after a promise that nothing should be removed, and only the abdomen examined. Weather warm. Rigor mortis not very marked. Body moderately well nourished. Abdomen slightly tympanitic. On section no fluid escaped. Omentum firmly bound by adhesions in both iliac as well as in the supra-pubic regions. In the left iliac region, resting upon the peritoneum covering of the iliacus internus muscle, was a collection of pus, not exceeding a drachm in quantity, shut in by walls, composed of omentum and fibrine. The intestinal serous coat was polished and smooth, and not covered with exudation, excepting a portion of the upper part of the ileum, and sigmoid flexure of the colon. The portion of the ileum referred to was adherent to the fundus of the bladder, and presented perforations which corresponded with some of many small perforations which riddled the fundus of the bladder. The vesical mucous, and muscular membranes were softened, and the color very deep. The viscus seemed to be undergoing disintegration. Right kidney contracted and fatty; pelvis and ureter greatly distended, and containing pus. Left kidney large and fatty; ureter and pelvis normal. The sigmoid flexure of the colon was bound down by adhesions, and presented a patch of about two inches in its long diameter where the tissues presented a gangrenous appearance and several perforations. The uterus measured about four inches in length, its os and cervix fully dilated. Os internum not, however, obliterated. Arbor vitæ very distinct. Uterine sinuses presented no abnormal appearances on section. Uterine orifices of Fallopian tubes not dilated. The left Fallopian tube, at about the distance of one inch from the uterus, terminated in a mass formed from the organs contained in the left broad ligament, but so transformed by disease as not to be separable in the limited time afforded by the exigencies of the case. Right ovary the subject of unilocular cystic degeneration, the cyst being about an inch and a half in the long diameter. Other organs not examined for the reasons given.

Remarks.—The extraordinary results of this post-mortem examination lend the deepest interest to this case, and make it, I believe, one of the most remarkable on record. It never occurred to me that the fluctuating tumor in the

left iliac region, detected on the 28th, was the product of the peritonitis, though I now believe it was due to pus inclosed by peritoneal adhesions. Whether the diarrhoea was produced by the discharge of this pus into the colon may be surmised, but cannot be positively predicated; nor could we have anticipated the perforations through the fundus of the bladder and the portion of ileum thereunto attached, unless, possibly, from much more thorough microscopic examinations of the urine than were made. With such post-mortem evidences of peritonitis as we found, it is pretty certain that a high grade of general peritonitis must have yielded to the treatment employed. Those reading the record of the case, however, can scarcely appreciate the comparatively satisfactory condition of the patient in all respects, except the urine, for some days before the 10th. She felt able and willing to leave the hospital, and her mother proposed to take her out. So much better had she progressed than was apprehended, both from the extreme danger which always attends these operations, and from the other complications existing, that my very unfavorable prognosis was much modified; and I was neither prepared for the sudden termination nor for some of the strange revelations of the autopsy. Simple as such an operation as the division of this hymen was, I yet believe that the smallness of the incision made, and the consequent slow escape of the retained menstrual fluid, was wise, and I think that I would operate in the same way in the next case. An important practical reflection in this case and many similar ones, is the neglect of proper vaginal examinations by the physicians who had seen her before her admission to the hospital. A number of instances have come under my observation, in which much mental unhappiness and physical suffering have been allowed to continue which could have readily been relieved by intelligent examination; and the converse of the proposition is equally true.

CASE II.—A lady from a neighboring city came under my care for great suffering in passing water; the vulva was found to be much inflamed, the seat of aphthous ulceration, and sensitive beyond measure. She menstruated, but informed me, that although married some years, she never had complete connexion with her husband, on account of "deformity;" that she had consulted a physician shortly after her marriage, who told her that she was deformed, and that there was a "bony obstruction." I took Dr. E. Lambert, then one of the House Physicians in Bellevue, to the case, and he kept her under the influence of chloroform, while I introduced a full-sized speculum, and disclosed a well formed vagina and uterus.

CASE III.—A gentleman, powerfully built and healthy-looking, asked me to visit his wife, to whom he had been married eighteen months without ever succeeding in having connexion, stating, also, that two physicians had prescribed for her unavailingly. She menstruated. On seeing her, my first impulse was to say, "You don't wish any children," to which she gave instant assent, as she thought that she would die in childbirth. An examination disclosed a well-formed hymen, through which I introduced a tiny speculum, not large enough to rupture the membrane, and left with the idea that no further advice would be required. But as nothing had been effected by the next day, I put her under chloroform, and introduced a full-sized speculum, the husband (who was present, and difficult to convince) objecting dolefully to one of less size, as inconclusive. She was subsequently safely delivered of a fine child, and has since applied to me to know whether she was again in the family way. Much unhappiness might be saved to many married couples, if their physicians would always give them fuller advice than is frequently given where there is embarrassment on one side and remissness on the other.

CASE IV.—I recollect hearing a physician of high rank in Dublin, say that a couple in England, wealthy, and desirous of an heir, came finally to him, when he found them both well formed, but prevented from effecting intromission by religious scruples regarding proper guidance of the male organ.

CASE V.—Dr. Perry brought me a patient, married for some time, who believed herself deformed, from the fact that connexion had never been effected. She was a perfectly well formed virgin.

CASE VI.—A young girl of nineteen, perfectly well developed, but who had never menstruated, was brought to me by a married sister who had never been pregnant. An examination disclosed a well formed vulva, hymen, and vagina, with a little, undeveloped uterus. My opinion was required regarding the propriety of marriage, and I gave it favorably, provided the lover was informed, as it was not impossible that the uterus might develop subsequently to that event. I have always regretted that I did not ask the sister to allow me to examine her, and ascertain whether her barrenness was due to a similar arrest of development.

CASE VII.—I remember a married woman in Velpeau's wards, whose husband had made quite a deep cul-de-sac by the side of an unruptured hymen, which le père Velpeau had to divide with a knife.

CASES.—I have operated successfully in young children, several times, for an occlusion of the vagina at the orifice, which would probably have resulted in permanent obstruction to menstrual flow. Indeed, without narrating more cases, enough has been said to illustrate the necessity for judicious exploration of these organs where health or happiness is at stake; and indeed the great majority of well-formed hymens will allow the careful introduction of the index finger, well oiled, and pressed against the urethra, without injury to structure; while in many patients who have leucorrhoea, or profuse menstruation, there exists an amount of relaxation which will admit readily of uterine diagnosis and topical treatment. Still, physical exploration is always a disagreeable alternative.

CASE VIII.—*Presentation of Nape of Neck and Shoulder—Version—Blunt Hook—Still-born Male Child—Recovery from Peritonitis (Metro-Peritonitis?), Pleurisy and Dysentery, and subsequent Death of Mother.*

Bridget Nugent, aged 22. Third confinement, April 22d, 1859, Lying-in Asylum. Duration of labor, sixty hours. Dr. Cock and I saw this patient at the request of Resident Physician, Dr. Wilson, and recognised an under-sized conjugate diameter, which might, however, reach three and a half inches. When seen, the waters had been evacuated fifty-three hours, and no foetal heart was audible. The presentation was obscure; it was either a nates or a shoulder; one limb attached thereto could be made out, and it was decided to draw it down for confirmation of the diagnosis. The patient having been brought under chloroform, I succeeded in doing this, after fracturing it at the commencement of my manipulation, when it proved to be the right arm, with the palm directed anteriorly when the radius and ulna were in the same plane, showing that the abdomen was directed anteriorly. On the withdrawal of the arm, an escape of very offensive discharges occurred. I then introduced my left hand, and reached a foot, which I could not bring down. The impediment was found to be the head, which was flexed in a most exaggerated manner, the chin far down on the breast bone, the head thus occupying the hypogastric region, and the nape of the neck being one of the presenting parts. I proposed to fix the head by a blunt hook passed over the neck, and then to perforate and deliver by cranial version. Dr. Cock preferred podalic version, and brought the left foot to the vulva. Unavailing efforts were then made by both of us to complete the version, which failed, although Dr. Cock so arranged a fillet as to enable it to bear his weight. After this, we both used traction with craniotomy forceps, until the foot and malleoli were crushed. I then exhausted myself in successfully pushing the head up on the left side of the uterus, when Dr. Cock brought down the right foot, and delivered to the umbilicus, when he yielded from fatigue, and I succeeded in completing the delivery, though only with the blunt hook in the mouth and fracture of the jaw.

Remarks.—In our experience an exactly similar case has never occurred, nor can a more difficult case of version be

met with than this proved to be. It is possible that an original head presentation was converted into one of the right shoulder and nape of neck, from failure of the head to dip within the somewhat contracted brim, and thus passing up on the anterior wall of the cervix, so as to become flexed on the chest in an extraordinary manner, as could be demonstrated after delivery. This flexion became increased possibly by flexibility of the articulations after the child's death. (No post-mortem examination for fracture or dislocation.) The region over the right acromion process and spine of scapula then became so enormously swollen, as to obscure their distinctive features. The operation was one of the extremest difficulty, on account of the contracted pelvis, the very great length of time (fifty-three hours) since the waters were evacuated, the size of the male child, and the extraordinarily wedged position of the head, which so long defied our efforts for its dislodgement.

Subsequent History of Case.—The following report is furnished by Dr. Wilson, Resident Physician of the Asylum, who attended the patient. I saw her two or three times, and had an opportunity of confirming the diagnosis of pleurisy and the physical signs of phthisis.

"After delivery patient weak and feeble, gave brandy and ergot until the uterus contracted well, and then gtt. xx. of Magendie's solution of morphine. April 22d, 9 A.M.—Pulse frequent and small, two grains of opium every four hours. 12 M.—Pulse 90, comfortable, passed water with difficulty, spts. æther. nit. dulc. 6 P.M.—Pulse increasing, tr. verat. vir. four drops every four hours. Midnight.—Pulse 100. 23d, 9 A.M.—Pulse 120, discharges offensive, tongue dry, skin hot, tr. verat. vir. five drops and four grains of opium every four hours. Noon.—Pulse 98, full and bounding, face flushed, four grains of opium every three hours—verat. vir. as before. 7 P.M.—Pulse 76, soft, gentle perspiration, tongue moist, considerable tenderness over the uterus; complains of pricking sensations over the body. 24th, 9 A.M.—Slept a little during the night, pulse 80, pain over epigastrie region, tongue coated brownish yellow, respiration about normal, passed water freely, discharge free. Noon.—Pulse 100, skin moist, tenderness and tympanitis. 3.30 P.M.—Pulse 104, bounding, skin dry, tongue dry, more tenderness, five grains of opium every three hours, verat. vir. six drops every four hours. 7 P.M.—Skin dry, pulse 98. 25th, 1 A.M.—Pulse soft, skin moist. 9 A.M.—Has slept a little, feels sore, but no pain, pulse 84, discharge free, not so offensive. 9 P.M.—Has passed a comfortable day, pulse 90, soft, very little tenderness, skin moist, lochia and milk free, small doses now of opium and veratrum viride. 27th.—Has been doing well, tongue cleaning, pulse 90, skin moist; but the window having now been left open, she had a chill, and at noon pulse 100, bounding; four-drop doses of verat. vir., opium increased. 2 P.M.—Pulse 110, face flushed, skin dry, secretions arrested, some tenderness, five grains of opium and three drops of verat. vir. 4.30 P.M.—Pulse 100, free perspiration. 5 P.M.—Four grains of opium and four drops of verat. vir. 7.30 P.M.—Pulse 78, soft, skin moist and full, comfortable, medicine to be continued p. r. n. 28th, 6 A.M.—Stopped treatment, doing well. May 2d.—Dysentery and typhoid symptoms threatening, brandy and quinine, bowels controlled by injections. 4th.—Doing tolerably well. 5th.—Four or five evacuations, watery, brown in color. 6th.—Eight evacuations in the night, yellow, curdy, offensive, much prostrated. 7th.—Better. 8th.—Three or four a day, mucus slimy, tinged with blood, tongue glossy, pulse 100, and feeble, much pain from swelling over the seat of the parotid gland, matter subsequently formed and was evacuated. 9th.—Feeble, bowels less frequently moved, gtt. xxx. tr. opii and nourishment. 10th.—About the same. 11th.—Evacuations more frequent, ordered a mixture with the extract of logwood. 12th.—Bowels moved only once last night. 15th.—Has continued to improve, but now presents the symptoms of inflammation of right pleura, which was promptly checked; cough continuing, examination disclosed physical signs of phthisis. 26th.—Has continued gradually to improve; insisted on leaving the asylum to

return to her husband in spite of Dr. Wilson's urgent remonstrances. 28th.—Has been doing well at home until about noon, when she was seized with difficulty of breathing, and died very suddenly; no post-mortem allowed, and no physician with her at the time."

CASE IX.—*Oblique Cranial Presentation from Left Uterine Obliquity—Forceps—Perforator—Mother did well.*

Catharine Regan, aged 27, second confinement, thirty-three hours in labor, female child. This patient was delivered in the New York Lying-in Asylum May 12, 1859. When first seen by my colleague, Dr. Thos. F. Cock, and myself, the uterine tumor was very obliquely inclined with the fundus to the left side, and the child's head was pressed firmly against the right linea ileo-pectinea and the iliac fossa. Exact position obscured by the caput succedaneum. Brim somewhat undersized, as the promontory could be too readily reached. Patient in an excellent condition, foetal heart audible.

The alternatives of version, the lever, and the long forceps, having been carefully considered, it was decided to keep the patient on her right side, and retain the uterine axis in correspondence with the long axis of the body by a bandage and compress, in hopes that the leverage thus exerted might dislodge the head, and permit its descent. In the event of this not occurring by the morning, the consultation was to be summoned again. On the following afternoon we were called by the resident physician, Dr. Wilson, and at 8 P.M. Drs. Borrowe, Cock, and myself arrived. Dr. Lee Jones was also present. At this time the head had moved from the right iliac fossa, but was firmly pressed against that side of the brim. Caput succedaneum very large. Foetal heart now inaudible, though Dr. Wilson had heard it at 5 P.M. Under these circumstances it was decided to attempt delivery with the forceps, room for which could only be obtained in front of the right sacro-iliac synchondrosis, and behind the left acetabulum. I then applied my forceps, carrying the first blade directly to its position without the customary spiral sweep (which would have been impossible in this case) and used every effort to advance the head without effect. When all were satisfied that such attempts were fruitless, I perforated the head. Great difficulty was experienced in withdrawing the head even after complete evacuation of the brain, and the blunt hook was necessary for both shoulders, nor did the pelvis pass without assistance. Placenta came away readily. No hemorrhage, and the patient made a good recovery. Profound anæsthesia kept up during the operation by chloroform.

Reports of Hospitals.

BELLEVUE HOSPITAL.

DELIRIUM TREMENS IN A PUERPERAL WOMAN.

[Reported by W. C. FERGUSON, M.D., House Physician.]

MARY M., æt. 26, native of New York, was admitted to the Hospital Oct. 2, 1860. Had previously been treated in the institution for delirium tremens, which fact established her character for intemperance. For some months had been residing in the country not far from the city. On 27th Sept., having reached the third month of her second pregnancy, from some cause which she was unable to assign, she aborted. She stated that she had considerable post-partum hemorrhage, by which she was much enfeebled. This did not, however, prevent her from coming to the city on the 29th, where, meeting with kindred and convivial spirits, she drank freely, and continued to do so, until the day previous to her admission. When seen, she presented the following symptoms. Anæmic, though rather full habit, tongue large, moist, white, and tremulous, indentations of teeth perceptible in both edges, pulse 108, great deal of muscular tremor, was rational, but started suddenly, and

became very much frightened when a door was forcibly closed, or any such noise made; complained of great dizziness in the head. On examination of the chest, a few mucous râles were heard; natural resonance preserved; abdomen enlarged, very tympanitic everywhere, except over the uterus, where a tumor could be felt, and dimensions ascertained by percussion, extending nearly to the umbilicus. Patient evinced a good deal of tenderness in the hypogastric region; lochial discharge present. When her urine had been voided, the hypogastric fulness was much diminished. The uterus could then be felt enlarged. Ordered the following: R. Sol. Magend. gtt. xv., also 3j. of brandy in form of milk punch; after which, at intervals of three hours, 3ss. in same form. Sol. Magend. to be repeated every one and a half hours, unless patient slept. Stupes over seat of abdominal tenderness.

Oct. 3, 10 A.M.—Had slept but little; falling into a doze and awaking frightened. Pulse 108, weak; tongue moist; still tender over the uterus; tympanitis not diminished. Is unable to elevate her head on account of the dizziness; considerable tremor of the muscles still. R. Sol. Magend. gtt. xx., and if not asleep, dose to be repeated at twelve o'clock; beef-tea ad libitum; ess. menth. pip. 3ij., to relieve tympanitis. P.M., 7 o'clock.—Had rested well for an hour or more. Pulse not diminished in frequency, and weak; more irritable; not so much tympanitis; tenderness over uterus subsiding; the organ itself of much less volume. R. Sol. Magend. gtt. xx., to be repeated at intervals of two hours, until three doses had been taken, unless sleep was procured; milk punch continued.

Oct. 4, A.M.—Had slept but little; during most of the night was in a state of active delirium, accompanied with ocular delusions incident to the disease; pulse 100; skin moist; is rational. R. Sol. Magend. gtt. xx., also the following, R. formyl. ter-chlorid. 3j., cinchon. tinct. 3ij. M. Dose, two teaspoonfuls every two hours, during the day only. 7½ P.M.—Delirium active, getting out of her bed, and endeavoring to leave the ward. Transferred to the cells for safer keeping. R. Tinct. opii, gtt. xxx., every hour and a half, until three doses should have been taken, if patient did not sleep.

Oct. 5.—Slept more than on any previous night; still somewhat delirious; pulse 96, but very weak; ate an egg for breakfast. Continue the chloroform during the day; brandy discontinued; take beer at breakfast and dinner; dry cups to the back of the neck, to relieve the unpleasant sensation of the head.

Oct. 6.—Pulse 96, feeble; still some delirium; slept two or three hours during the night; head relieved. Oct. 7.—Better; pulse 90, fuller; patient very weak; rested quite well. 10.—Pulse 88; converses rationally; delirium entirely subsided; appetite improving; considerable uterine hemorrhage. R. Ergot tinct. 3j. every half hour, until given three times; also to use sat. sol. aluminis as injection. 7½ P.M.—Hemorrhage was readily arrested. Oct. 11.—Slept during entire night. Continued to improve until 16th, when she was discharged by request.

NEW YORK MEDICAL COLLEGE.

PROFESSOR GARDNER'S OBSTETRICAL CLINIC.

February 6, 1861.

REMARKS UPON ENDO-METRITIS, EMPYEMA, AND THE SIGNS OF PREGNANCY.

CASE I.—*Endo-Metritis*.—This patient was present at the clinic formerly reported. The Professor drew the attention of the class to the appearance of the os tincae. From it there was little or none of the limpid, stringy, albuminous discharge exuding, so profuse at the previous examination; the os was less full and congested. A stick of nitrate of silver was thrust into the cavity of the cervix an inch and a half, and she was directed to come again in two weeks, as menstruation would be present at the time of the next

clinic. The professor stated that on her next appearance there probably would on that account be an aggravation of all her local symptoms, that the menstrual hyperæmia would leave the parts more inflamed than before, with more redness, secretion, etc. The physician should not be discouraged at this, but recognise it as a normal condition, and not a consequence of inappropriate treatment; and he should forewarn the patient of this almost constant result of menstruation, particularly if it should chance to happen shortly after the first application, lest she get the idea that she was injured instead of benefited by it. Indeed the patient should always be told that for a day or two after the application of caustics to the cervix, and especially within it, they should anticipate marked increase in the local symptoms, perhaps quite severe pain, possibly slight hæmorrhage; and by the end of the second day, increased discharges of serous material, with something resembling skins, that is, the coagulated flakes of albumen, mixed among it.

CASE II.—*Empyema of the Left Pleura following Labor, of four years' standing*.—This patient, upon removing the clothing, showed several openings in the side and back below the breast, from which laudable pus was freely escaping, and the cicatrices of several closed openings. She gave the following history. I have lived in Trenton, N. J., am about 30 years of age. Four years next April I was delivered at full time, when on the third day, at about the time of secretion of milk, I was exposed, from the cooling down of the room which had previously been too hot, and caught a severe cold, giving me pleurisy in the side. The baby died; I had no milk, and was very sick with high fever, pain in side, obstructed breathing, slight cough and without sputa, etc., for a long time; I have never menstruated since. My left side gradually grew larger, and finally my chin touched upon my breast, an abscess formed under the left breast, grew red and soft, and in July following it was lanced by Dr. Colman, of Trenton, and four quarts of pus taken out. Ever since that time it has never stopped flowing from one or the other of these holes.

The Professor stated that this was a very remarkable case in several points of view, and called upon the members of the class present, who had heard as much about the case as he, for a diagnosis. One stated that it was empyema. Yes, he continued, there can be no doubt in regard to it; the extraordinary quantity of pus which escaped at the puncture near the margin of the left floating rib, the orifice now closed, made it evident that there had been no mistake in the diagnosis. It had been pleuritis, and the inflammation of the pleura had gone on to suppuration, the formation of pus, or empyema. The protrusion of the intercostals is considered to be the most certain sign by which this may be indicated, for this symptom is rarely seen even in very copious effusions of non-purulent matter, while it is generally seen even when the quantity of pus is comparatively small. Those who have attended our large hospitals must have frequently noted this fact, and the treatment peremptorily called for, viz. paracentesis thoracis, and the withdrawal of the pus, which very rarely is absorbed. Dr. Colman, of Trenton, I know to be a very judicious practitioner, and very possibly, as is often the case in country practice, he had not seen the patient as often as might have been desired, or the actual disease might have been masked by other symptoms. At any rate, you will long remember this case, and with it remember, that where the diagnosis is undoubted of empyema, the operation should be speedy.

Left to itself, this disease terminates by absorption rarely; by the pus breaking through the lung in several places, and emptying finally into the bronchi, when it is expectorated, this soon becomes fetid from the entrance of the air, and is generally fatal; by perforating the diaphragm, very rare; and finally by opening a way through the walls of the chest, sometimes by absorption of the ribs and vertebræ.

The case before us is the first one that I have seen of this description, probably for the reason that at the present

day, few cases are allowed to progress to this point before they are interfered with and punctured with a trocar. It is, however, remarkable also from the fact of the quantity of the fluid which was drawn off, and which must have filled up the whole chest, and obtruded upon the other; secondly, because the patient still survives, after nearly four years' constant flow. This case, as well as that of our venerable and much beloved friend, the ornament of our profession, Dr. J. W. Francis, who has for nine weeks survived the exhausting effects of profuse suppuration of several ear-buncles, boils, abscesses, etc., shows the effects of a good constitution. This does not depend upon self entirely, although *first living*, such as too many medical students are prone to, may destroy the best constitution. Bodily stamina depends upon vigorous ancestry. Two things you may leave to your children—an unspotted name, and blood free from a taint telling no creditable story. This patient's family were not serofilous—had they been, she would not now be here. It is only this vigor which has sustained her.

Now for the *treatment*. The suppression of the menses is an unimportant matter. Nature has enough to do to provide for this constant flux without attempting to establish this function. When strength and vigor are restored this will also be re-established. In regard to the ulcerations: some ignorant quacks may propose to heal up these fistulous openings. Such a procedure would be more than foolish, probably fatal. The pus would be secreted and retained, again to excite general disturbance, again to break out. The pus comes from a distance. The probe, as you see, passes its full length under the integument. Where the opening into the pleural sac is, it will take more time to discover. It may be desirable to make a nearer opening, perhaps to make injections of pure water, iodinized or brominized solutions, into the pleural sac, to stimulate it to granulation, and thus effect a closing of this abscess from the interior. All medication is to be limited to tonics, appetizers, and stimulants, if requisite. The patient should seek for the best hygienic conditions—first, pure air. She has left the pure air of the country, and come to this city—the healthiest city in the world, notwithstanding that our blind city fathers (who, like the dead, always have a dollar upon their eyes, elosing them to right motives) have, by cutting down its hills, interfering with its water-courses, and leaving its gutters and sewers filled with putrefaction, done all they can to vitiate its naturally pure air. The patient may, perhaps, not find the more equable air of the city injurious during the cold weather; and during the summer she had better alternate between the country air and the invigorating breezes of the sea-shore, as she says she is enabled to do. For food, the best beef and mutton freely, twice or even three times a day; ale, porter, or sound spirits in moderation. She is well enough to take exercise freely on foot; she should do so. She should keep good hours, avoiding excitements, whether of the crisis, religious, or domestic; avoid crowded assemblies; in short, do all that she can to make herself vigorous and healthy, trusting to the recuperative powers of nature to carry her through this trial.

CASE III.—*Suspected Pregnancy*.—The patient, who has just gone out, complains that her menses have been arrested for some months. She strongly asseverates that "she knows not man." She says she is "but a young girl," and that she is thirty years of age. From the firmness with which she clasped her knees, a satisfactory vaginal touch could not be instituted, yet the finger well introduced did not arrive at the cervix, neither was there any impediment to its passing into the vagina, which would easily admit a large speculum well oiled, and the patient did not resist—an unusual circumstance in a virgin. The abdominal touch elicited nothing, as the abdomen was tense with the straining of the muscles. The breast you saw. You noticed that the nipple was developed and protruded; now this might have been the effect of the excitation connected with the examination previously instituted.

In women of this class such a thing is not uncommon, and should be recognised on making a diagnosis. The same may be said of the *carunculæ myrtiformes*, which are also composed of erectile tissue. The discoloration of the areola is not, however, thus transitory. You have been taught that this is a sign of pregnancy. Do not look upon it as infallible. There is but one infallible sign by which you can be *positive* of its existence, viz. the beating of the foetal heart. This discoloration, not so much a darkening as a turning of its roseate tint to a light brown, is often seen—although books of instruction are not very full upon the point, if they ever mention it—as an accompaniment of amenorrhœa, and indeed of many forms of uterine irritation. Sometimes, indeed, the described rosiness is never present, therefore, be slow to judge harshly. Give the patient the benefit of the doubt. She will come here at a future day, when we may be enabled to make a certain diagnosis; meantime I will order her a single pill of aloes and iron at bed-time. If pregnant, it will not be powerful enough to interfere with the natural functions; and if not, it will assist the powers of nature.

American Medical Times.

SATURDAY, FEBRUARY 16, 1861.

THE STATE MEDICAL SOCIETY.

SCIENCE is a powerful inductor to fraternization among its cultivators, and in every progressive or experimental department of knowledge fraternal association affords at once the best evidence and the surest means of advancement. In the promotion of Medical knowledge and its humane applications the benign influence and utility of voluntary scientific associations are most happily illustrated.

The Fifty-Fourth Annual Meeting of the NEW YORK STATE MEDICAL SOCIETY, which was last week held at Albany, impressed us, as all its later anniversaries have, with the spirit of progress and permanency that characterizes this leading State organization of the Medical profession. And as we may see in this long-established Society the types and shadows of many things both good and evil in the Medical profession and its central Associations, our readers may be pleased with a few brief comments upon the practical operations of this ancient and honorable body.

Organized but two years subsequently to the foundation of the Royal Medico-Chirurgical Society of Great Britain, and having in view objects and results not less definite or important, the NEW YORK STATE MEDICAL SOCIETY has scarcely failed to equal the usefulness and dignity of the latter Royal organization. Indeed the peculiar necessities, noble efforts, breadth of plan, and purity of purpose that marked the early institution of our State Society, as well as the results of its operations, give to it a truly royal character. It was not solely for purposes of science or medical progress, abstractly considered, that this Society was organized. An exalted philanthropy was the first moving cause that induced this central organization of medical men in the Empire State, and that philanthropy alone procured the Medical Act of 1806 under which the State and County Societies were ushered into existence.

As early as the year 1796 vigorous efforts were made to induce a fraternal association of all true physicians in certain districts of the State; and in the year 1805-6 we find the physicians of Saratoga, Montgomery, and Washington counties uniting in council upon the subject of improving the practice of medicine and preventing the incursions of empiricism and the dangerous practices of ignorant pretenders and quacks. At a public meeting held at Ballston, November 7, 1805, it was declared that "the wish of the meeting is, to procure from the Legislature of the State their sanction to a Medical Society;" and on the 16th of January, 1806, at another public meeting, a Memorial to the Legislature was reported, adopted, and signed, and by the hands of Drs. John Stearns, Asa Fitch, and Alexander Sheldon, transmitted to the Legislature. Violent and unscrupulous opposition was made by the horde of mountebanks and quacks that then gloated upon and augmented the maladies of the people. They regarded any recognition of the necessity of scientific knowledge and skill in the healing art, as a doom to their ill-gotten gains. But under the inspiration of humane and lofty sentiments from such distinguished advocates as the Hon. Dr. Sheldon and the Hon. William Van Ness, the State of New York placed its statutory seal upon the Act for Incorporating Medical Societies, and before another year had passed there had been organized about twenty County Medical Societies, and a central State Society. From that early day to the present these associations have grown in strength and usefulness.

Based upon the simplest principles of representation and union, the authorized organizations of the medical profession in New York have continued to grow and prosper. Their general usefulness is continually increasing, and probably no other State in the Union is favored with a better plan for such organizations. But from several years' observation of the practical workings of our State Society, and with none than agreeable reminiscences of its anniversary gatherings, we feel warranted in suggesting that greater vigilance and faithfulness be exercised by the county societies and other primary associations and institutions in selecting and duly accrediting their representatives for the central Society; and also that each primary body should make itself responsible for some portion of the work undertaken by that society, and when any momentous question is to be considered, the delegates should be selected with special reference to their ability to act discreetly with reference to those particular subjects. This suggestion may properly apply to all the representative bodies of the profession, especially to the delegations that make up the American Medical Association. Great issues and vexed questions, from time to time, must demand the action of both the National and the State Associations, and then it is that men for the occasion and the hour are needed. At the late gathering of the State Society at Albany the subject of a Commission of Lunacy was again presented as at the two previous anniversaries, and none could deny the paramount importance of the subject; but how few counties selected or instructed their delegates with reference to it. The Society was called upon to recommend and urge the passage of an act that provided for a *single Commissioner of Lunacy who should also be an Inspector of Almshouses* for the great State of New York with its four million inhabitants! How many of the delegates at that meeting had so examined the subject of

lunacy as to be qualified to act or speak intelligently upon this question? Fortunately there were a few gentlemen present who had thought upon the subject, and a wise direction was given to it. We do not mention these facts invidiously, but suggestively.

Another suggestion might profitably be heeded regarding the reading and discussion of papers and reports in this and all other large associations. In order to expedite business, and do full justice to all, properly prepared abstracts should take the place of protracted readings. The time of a large company of delegates from the ranks of busy practice is infinitely precious, and ought not to be wasted in listening to needless details and long speeches. Finally, it is as desirable as it is obligatory that in reference to any great question of medical or hygienic improvement these representative bodies of our profession should be "first pure, then peaceable," united and harmonious. There certainly is no necessity for notorious differences among doctors. Why should the discussions upon medical education, and other important measures in the National Association, or the proposition for a Lunacy Commission, and other means for promoting State hygiene by the State Society, be made the occasions for acrimonious debate, when the very spirit of our profession calls us together for counsel and conciliation? The most charitable view we can take of such needless differences would attribute them to ignorance, conceit, and selfishness.

But a truce to criticism. Of the N. Y. State Medical Society it may be truly said that the exalted and philanthropic animus of the profession has never failed to harmonize and subdue all differences. The medical profession of New York, and the entire profession in our country, are strongly bound together, and most effectually fraternized by means of voluntary and legalized associations. In the American Code of Medical Ethics the profession has a law unto itself that is nobler, purer, and more enduring than the State could provide or any statutes enforce. No other country presents such completeness of representative councils and union of interests, among its physicians. To the Medical profession of New York belongs the honor of having taken the lead in founding the National Association of Physicians, and to our State and County organizations pertains the credit of maintaining a model system of professional association.

THE WEEK.

THE annual meeting of the State Inebriate Asylum was held in this city on the 4th instant, when the following officers were elected for the ensuing year:—John W. Francis, M.D., LL.D., of New York, President; Hon. W. T. McCoun, of Long Island, Vice-President; Hon. Josiah B. Williams, of Ithaca, second Vice-President; J. H. Ransom, of New York, Treasurer; J. Edward Turner, of New York, Corresponding Secretary, and T. Jefferson Gardner, of New York, Register.

Applications to the number of 4,310 have been made from every state in the Union, and from every county in this state, for admission as patients to this institution. The asylum, which will accommodate four hundred patients, will be ready for occupancy in the fall. The funds of the institution have been contributed by almost every town and village in the state, and the services of agents, officers, and trustees have been gratuitously rendered. The following resolution was adopted:

Resolved, That this Board appoint Thomas W. Olcott, Thomas C. Brinsmade, and J. Edward Turner, as a committee to urge upon the Legislature the importance of the immediate passage of the bill entitled "An act for the relief of the New York State Inebriate Asylum and for other purposes."

This "act of relief" is asked merely to authorize the institution to issue bonds, based upon their lands, to the amount of \$60,000, and does not contemplate the solicitation of funds from the State.

A BROOKLYN paper, under the caption, "Our Peerless City," indulges in a glowing strain of eulogy upon the natural beauties, social refinement, and incomparable growth of that city. This writer has, however, overlooked one item in the account which insures to Brooklyn, beyond question, the title of the "Peerless City." We refer to the great annual mortality of its inhabitants, and especially children. We have before us the *Annual Report of the Health Officer* of the city of Brooklyn, for the year 1860, from which it appears that the mortality of the past year, one of the healthiest on record, was 1 in 36.7 of its population, while of those dying within the limits of the city more than two-thirds were children! The following comparison of the death-rates of several of the principal cities to which we can at this moment refer (omitting New York) proves that Brooklyn is eminently entitled to the appellation peerless:—

Brooklyn, annual mortality,	1 in 36.7 of population.
Boston, " "	1 in 48 " "
Providence, " "	1 in 52.9 " "
Philadelphia, " "	1 in 51 " "
Baltimore, " "	1 in 50 " "
Chicago, " "	1 in 52 " "

THE friends of the late Dr. C. E. Isaacs are about to erect a monument over his remains at Greenwood Cemetery. The Committee in charge of this matter are, Drs. VAN BUREN, J. T. METCALFE, and J. G. ADAMS, of New York, with Dr. J. M. MINOR, of Brooklyn.

IT is our melancholy duty to record the death, during the past week, of one of the most eminent members of our profession—JOHN W. FRANCIS, M.D., LL.D. Dr. FRANCIS had been suffering severely for several weeks from earbunles, which so prostrated his system that painful apprehensions were entertained of an unfavorable result. These fears were somewhat relieved by an improvement in his symptoms, and strong hopes of his recovery were expressed by his physicians, Drs. MOTT and KISSAM. But it soon became evident that this amendment was only temporary. His vital powers now began to yield rapidly to the long continued depression of an exhausting disease, and the fatal issue was anticipated with unfeigned sorrow by the profession. Dr. FRANCIS died at his residence in East Sixteenth street, at three o'clock, on Friday morning, February 8th, in the seventy-second year of his age. The funeral services took place at St. Thomas's Church, on Sunday, the 10th inst., and were largely attended by the medical profession and a vast concourse of people. The remains were interred in Greenwood Cemetery. We shall give a biographical sketch of this distinguished physician in our next week's paper.

WE are informed that Dr. H. W. Baxley, of Baltimore, does not intend to take up his residence in California, as noticed in a previous number.

Reviews.

ON DIABETES, AND ITS SUCCESSFUL TREATMENT. By JOHN M. CAMPLIN, M.D., F.L.S. From the Second London edition. New York: S. S. & W. Wood, 1851, pp. 87.

THE author of this work suffered in his own person the disease which he describes, and the work is chiefly interesting for the narrative of his own experiences in dieting and medication. His chief reliance on the recurrence of attacks has been on bran cakes, of which the following is the formula:—Take a quart of wheat bran, boil it in two successive waters a quarter of an hour, each time straining it through a sieve; then wash well with cold water on the sieve until the water runs clear; squeeze the bran dry in a cloth, and place it in a slow oven spread thinly on a dish, and leave it until perfectly dry and crisp; it must now be ground in a fine mill and sifted through a wire sieve so fine as to require a brush; what remains is to be re-ground. Take of this bran powder three ounces, three new laid eggs, one and a half ounces of butter, half a pint of milk; mix the eggs with a little of the milk, and warm the butter with the other portion; then stir the whole well together, adding a little nutmeg, ginger, or other spice. Bake in small tins, which must be well buttered, in a rather quick oven for half an hour. Care is enjoined in washing and drying the bran, as by that means it is freed from starch, and rendered more friable. Mr. C. states that this diet, with meat, cheese, &c., always relieved his attacks at once.

Progress of Medical Science.

Anæsthetics in Midwifery.—In a paper on the value of anæsthetic aid in midwifery, read before the Obstetrical Society of London, by Dr. CHARLES KIDD, the author states that though there have been twenty-five deaths from ether, in general surgery, he believes it superior to chloroform in relaxing the tissues in cases of version. In about thirty thousand cases of midwifery, in which these agents have been used, no accidents have occurred. "Chloroform is invaluable where there is exhaustion from debility, or shock, the result of great or long-continued pain; where there is loss of nerve force, or convulsions from excess of reflex irritability or pain, mental emotion, excitement, &c." It is not indicated where debility is the result of hæmorrhage, diarrhoea, and suppuration. When it is feared that hæmorrhage may follow its administration, a large dose of ergot may be given towards the close of labor. It should be remembered that it is not required to carry insensibility so far as in surgery.

Cause of Death from Chloroform.—Dr. Petrie, in a letter to the London Medical Times and Gazette, thinks death from chloroform often due to the position of the patient, the face turned upwards, in consequence of which, the tongue by its own weight falls back, carries the epiglottis close down to the top of the windpipe, closing the glottis, when inspiration at once ceases. He proposes the lateral position, for the purpose of obviating the casualty, and ascribes to this its safety in obstetric practice.

Removal of the whole Tongue.—Mr. Syme has twice undertaken the operation of removing the organ at the hyoid bone; both patients died from a low form of secondary pneumonia, probably from some atmospheric, accidental, or constitutional cause, the wound in both instances continuing in a perfectly healthy condition. Mr. Fiddes, of Jamaica, has since operated successfully, proving that the operation, though dangerous, may be undertaken with reasonable hopes of success.—*Med. Times & Gaz.*

Gonorrhoeal Ophthalmia.—Dr. LUNDA, in the *Wien Wochenschrift*, recommends the application of the oil of savine to the conjunctival surface of the upper eyelid, after the acute inflammation has subsided. It causes great pain and hyperæmia, which soon pass off, and the cure is rapid. He has made the trial with this result in sixteen cases.

Quinia in Tedious Labors.—In the Proceedings of the Union Medical Society, Knightstown, Ind., Dr. JOHN LEWIS reports a case of labor in which, after about ten hours of slight ineffectual pains, he had the patient's feet bathed in warm water, dry cups applied to the sacrum, and gave at once ten grains of quiniæ sulph., at which the pains increased in frequency and duration, and the labor steadily progressed to a speedy termination. He says this has been his custom for the last ten years, and he expects the same result, as surely as nausea from ipecac, or purging from jalap.

Vaccination in Nævus.—M. NÉLATON resorts to one of the following methods for the purpose of avoiding hæmorrhage:—the finest insect needle charged directly from a child's arm is passed in and left in situ until the tissues have had time to become impregnated with virus; or, setons are first applied at the base of the tumor, and left in situ for a week; and through the fistulous tracks thus obtained, threads are passed, charged with virus, the cutaneous apertures being protected by small canulæ.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK

FIFTY-FIFTH ANNUAL MEETING.

MORNING SESSION, TUESDAY FEB. 5, 1861. (CONTINUED.)

DISCUSSION ON INVERSION OF THE UTERUS.

(Continued from page 106)

In relation to Dr. Van Dyck's case of Inverted Uterus, Dr. Quackenbush stated that a very interesting case of the sort came up for trial in Chicago not long since; the physician, Dr. Fisher, being charged with malpractice. It seemed that not until three weeks after confinement was anything of the kind noticed, and the parts were not replaced until three or four months had elapsed. The jury came to the conclusion, that the organ became gradually inverted, and after remaining in the vagina all that time, finally passed out. The case was decided against the physician, notwithstanding it was proved that the vagina was at that time so far unoccupied as to allow the passage of a large syringe into it for purposes of injection. The nurse also affirmed that the uterus was firmly contracted after delivery.

Dr. THORNE mentioned a case which occurred to him some years ago. He was consulted by a woman lately from England, who presented between her thighs a tumor covered with a cuticle, resembling the skin in appearance. She stated that she had been afflicted by its presence for a number of years, but desired treatment more particularly at that time in consequence of the presence of a troublesome ulceration upon its surface. After very careful examination the tumor was decided to be an inverted uterus. Dr. Blatchford also saw the case, and upon consultation it was deemed best to attempt a reduction, which was effected with not much difficulty. In answer to Dr. Quackenbush, he stated that there was some dimpling of the organ.

Dr. QUACKENBUSH referred to a case of inversion seen by Dr. White, where, after an existence of thirteen years, reduction was effected. He thought that in all cases of inversion restitution took place first at the os, and continued from below upwards instead of by simple dimpling of the fundus.

Dr. VAN DYCK thought that some distinction should be

made between recent and old standing cases, inasmuch as in the latter instances it would be almost impossible to produce that dimpling. In his case he tried to shove up the organ with his whole hand, but could not succeed. He then lengthened out the finger, soon the dimpling came on, and the organ was replaced. In some of these cases he thought that the dimpling was a matter of necessity.

Dr. BLATCHFORD stated, that soon after seeing the case with Dr. Van Dyck, he dined with Dr. Wing, who stated that he had seen just such a case, and reduced it in the same way.

Dr. QUACKENBUSH, in answer, to an inquiry from Dr. McNulty, stated that he did not believe inversion could take place unless the body of the uterus has been previously filled, either by a fetus or a tumor. The uterus in its normal state had too small an amount of muscular fibre to render any such effect possible, and, besides, the cavity of the organ was so small that there was very little or nothing to be inverted.

Dr. McNULTY asked Dr. Q. if he believed any predisposition ever existed in any given case, and whether inversion might not take place, independent of any mechanical cause?

Dr. QUACKENBUSH.—I do not think that that question has been much studied; the impression is, whenever we have these cases of inversion, and when we can't apply a better reason, that there is a predisposition. Authors state this to be a fact, but what they mean by it, it is hard to tell. My impression is, that inversion takes place sometimes without any mechanical cause. It has been generally supposed that injudicious treatment could only produce it, yet we find such a state of things occurring occasionally in practice of the most scientific obstetricians, when there has been no drawing upon the cord whatever, and sometimes in fact before there has been any endeavor on the part of the obstetrician to remove the placenta at all. In some cases you draw very lightly upon the cord and the womb becomes inverted, while in others, you may pull with a great deal of force without producing the accident. In order to explain this it is necessary to assume that some pathological condition, which we call a predisposition, exists in one instance and not in another.

Dr. VAN DYCK asked Dr. Q. if there was any such thing as a gradual inversion, remarking that such was the doctrine taught in the books.

Dr. QUACKENBUSH said, that a great deal was taught in books which was absolutely wrong, and in the matter of inversion this was especially the case. He maintained that in cases of inversion the succession of events was generally so rapid that it was impossible to form an idea exactly how it took place. He remarked that bookmakers were too apt to follow implicitly the assertions of those who had preceded them in the task, without stopping to inquire the foundation for such assertions.

Dr. BRINSMADE asked Dr. Lee to favor the Society with a few remarks upon the subject under consideration, but there being little time left in the morning session it was agreed to assign Dr. Lee the first part of the afternoon session.

The Committee on Credentials made a partial report, after which, on motion of Dr. McNulty, the meeting adjourned until 3½ P.M.

AFTERNOON SESSION—TUESDAY, FEB. 5TH, 1861.

INVERSION OF UTERUS—REMARKS OF DR. LEE.

The meeting was called to order by the President, Dr. Jones, when the minutes of the previous meeting were read by the Secretary, Dr. S. D. Willard, and approved.

Dr. C. A. LEE said:—I do not claim to know much more on this subject of inversion of the womb than the profession generally, and the reason why I have been called to make some remarks upon this occasion is owing to the fact that a paper was published by me in the October number of the *American Journal of Medical Sciences*. I was led to

study the subject, as I was called upon to make a deposition in the Chicago case in which there were fifty questions put to me. I found quite a large number of cases scattered through the books; I collected about two hundred, and made an analysis of one hundred and forty-eight. I do not claim, Sir, to know very much of the subject from practical experience. I presume that there are physicians in this room who have been in midwifery practice all their lives, and yet have never met with a case. It is well known in the London and Dublin Lying-in Hospitals that out of 40,000 cases of delivery, not a single case of inversion has occurred. I infer from that fact, that this accident does not often occur in the practice of physicians well acquainted with the science of midwifery, and that it is due to carelessness and inattention on the part of the attendant: I will not say, want of skill, because a sudden nismus may take place and the womb become inverted before we suspect any danger. We know that this happened to Prof. Dewees, and with that ingenuousness which was a characteristic of the man, he relates how in attending a case, before he suspected that anything was going to happen, the placenta came down adherent to the fundus, that the womb was inverted, and then he goes on to describe how he replaced it. You will find that Dr. Ramsbotham also describes a case which occurred in his practice which he thought was owing to negligence on his part. There is a belief which is very prevalent in the profession, that when the womb is inverted and placenta adherent it must make its appearance externally. This I believe to be a mistake; certainly after the placenta is separated there is room in the vagina for the womb to remain without being visible externally. In a letter from Prof. White, of Buffalo, which I have received within a few days, he describes a case where he found the uterus in this condition.

In regard to the manner in which this takes place, I consider it rather a matter of theory. No man has ever observed it, for if he had been watching for it, it would not have occurred. Some say it is due to irregular contraction; some say, with Dr. Quackenbush, that evolution commences first at the neck of the womb; others say that the fundus is dimpled and gradually projects downwards until at length the womb takes the alarm and begins to expel the fundus exactly as it would a foreign body. That I believe to be the way in which it generally happens. I don't believe in this evolution at the neck. To say that such a tissue can take on contraction with such a small amount of muscular fibres, so as to invert it, is absurd; however, it is a matter of pure theory. Not exactly all theory either, because you will find in two cases which are quoted by Dr. Dewees in his midwifery, where the womb had been inverted, that the physician replaced it and suddenly as he withdrew the hand the fundus followed it down and came out externally. He then pushed the fundus up and tried to retain it there, but every time he withdrew his hand the womb came down. He thus observed that the process commenced at the fundus and not at the neck. Here, then, we have two or three actual observations to base against the theory advanced. I doubt very much whether it can be accomplished by irregular contraction. I believe that in order to invert the womb the placenta should be adherent, the uterus relaxed, and that there should be a strong abdominal nismus, when the placenta will drag down the fundus.

Now, in regard to this case at Chicago. It is a remarkable fact that we had no instance of a medico-legal record of any such case. (The Dr. then read an abstract of the case as published.)

Now, gentlemen, in regard to the defence in this case it was thought that the inversion took place gradually; that there was a slight dimpling of the fundus which slowly increased, and in the course of thirty or forty days the uterus turned itself inside out. This inversion occurred rather suddenly. The physician then made the examination for the first time after her delivery, notwith-

standing there had been oft-repeated hemorrhages, during all that interval. Dr. Potter was afterwards consulted, who did not give a very favorable opinion of the case. Dr. Fisher heard of it, and immediately commenced a suit for slander. Mr. Stone, the husband of the lady, employed two lawyers, who proposed that Dr. Fisher should leave the case in the hands of three medical gentlemen. This proposition was not acceded to; the suit was commenced; the damages were laid at \$20,000, and the case was decided against Dr. Fisher. I gave my deposition to the effect that it was not a case of gradual inversion, but that the occurrence took place at the most the first or second day after the delivery, and that the Doctor was guilty of neglect to his patient in not making an examination sooner to find out the cause of the hemorrhage.

In conclusion, I will allude to two or three results which I have deduced from the statistics. In regard to inversion of the womb I have shown that in sixty-two cases where the cause is assigned, thirty-nine are stated to have occurred from pulling on the cord, and I believe with Dr. Lee, of London, that this is the most frequent cause of the difficulty, especially in case the placenta is adherent. Then, again, in twenty-five cases the delivery was very rapid, and I believe that that is one of those collateral circumstances which predispose to this accident. In twenty cases out of one hundred and forty-eight, labor was natural and slow, but in the majority there were symptoms of uterine exhaustion. That is another of the circumstances which I believe favors inversion. The womb is like a wet rag, and falls downwards from the mere weight of the fundus, and not by contraction of the neck. Dr. Lee, of London, says that inversion is frequently if not invariably owing to pulling of the cord before the uterus has had time to contract. Now you hear a great deal of spontaneous evolution, when it has occurred without interference on the part of the attendant, but this I believe is *very seldom* the case. I do not say that it is an impossibility; but when such a case turns out you may depend upon one thing, that is, that it commences at the time of delivery. Nor is the inversion gradual; it probably happens the first day after delivery. This was in all probability the fact in the case reported this morning; the inverted womb remained in the vagina, which, having just previously passed a foetus, was ample enough to contain the displaced organ without having it appear externally. This point caused a great deal of discussion at Chicago, and it was contended by many that because the uterus did not appear externally, therefore the inversion did not take place at the time of delivery. I will relate a case which occurred to me recently. I was called to a lady who had been out of health for twenty-five years, and during that time she had consulted a dozen different physicians. Since the commencement of her illness she had been suffering from repeated uterine hemorrhages, which left her in a very anæmic condition. At the time of her delivery, twenty-five years ago, the midwife who attended her used a good deal of force in taking away the afterbirth. I examined her at once, suspecting that something was the matter with her womb, either polypos or inversion. I passed my hand up and felt a body hanging down like a fibrous tumor attached to the fundus, but I did not make up my mind as to its precise character. On examining again, however, I ascertained that the womb was inverted. I wrote to Dr. White a history of the case, and asked his opinion, she being at the "change of life," whether he thought the hemorrhage would cease after that period. The Doctor thought that the flow would not be checked by delaying, and advised me to attempt a reduction. I, however, did not follow his advice. The "change of life" brought with it a stoppage of the hemorrhage, and for the last two years the woman has enjoyed very good health. The anæmia was removed by diet. A very important inference can be drawn from this case in reference to the influence that may be exerted by the cessation of the menses. None of the physicians who had previously seen her had made an examination to ascertain the source of the hemorrhage.

In the one hundred and forty-eight cases the uterus was reposit in fifty-one, and three are recorded by Meigs as cases of spontaneous involution. I think Meigs made a mistake in the diagnosis; such mistakes have been made by as great men as he, by Baudelocque, Sir Charles Bell, Rigby, and others. In most of the cases the placenta was separated before it was replaced. I will not detain you to speak as to whether the womb should be reduced with the placenta adherent or not; the course to be pursued must depend upon circumstances. There is one fact which I have proved, and which will no doubt be interesting, that is, that it is not a dangerous operation to remove the inverted uterus by ligature. I, myself, was certainly astonished to find how large a proportion of the cases recovered. In thirty-two cases only four proved fatal. These are all well attested cases; the name of the author is given, and there can be no doubt as to the correctness of the diagnosis in each instance. The operation of excision is more dangerous than that of ligature. Out of fourteen cases in which this operation was performed, four died. In a case of long standing, I think I should prefer the ligature to manipulation, that is to say, if the patient was past the child-bearing period.

DR. QUACKENBUSH: In rising to reply to some of the remarks of Professor Lee, perhaps I should offer an apology to the Society for trespassing so often on its time and attention in the discussion of this, to me, highly interesting subject. And yet when I remember that I occupied the floor in replying to certain interrogatories proposed to me, I am the more ready to believe that the Society will pardon me if I again express my views in elucidation of some of the points to which the Professor has alluded. The subject of Inversion of the Uterus has lately attracted considerable attention in this country and in England, and its treatment seems now to be generally well understood. The cause of the difficulty, however, is not so definitely settled, and the manner of its occurrence is enveloped in much doubt and obscurity. It has generally, I might say universally, been supposed that the uterus becomes inverted by a depression of its fundus, that at this point there is an indentation, which becomes larger and larger, and finally the whole organ turns *inwards* upon itself and becomes entirely inverted. This view is adopted by Professor Lee. I suggested, in a report read before this Society one year since, another mode, namely, that the inversion of the organ commenced at the *neck* instead of the *fundus*—this the Professor characterizes as impossible! nay, as absurd. Upon this point, Mr. President, I take issue with my learned friend. Every gentleman present knows that if you place the hand upon the abdomen of your patient shortly after the delivery of the foetus and placenta, the *fundus* feels hard and firm; while, if an examination be made *per vaginam*, the *neck* will be found to be flaccid and relaxed, and you can hardly tell where the vagina terminates and where the womb commences; and let me inquire is not this the very condition we would expect to find if the inversion commenced in the manner indicated? But that I may be better understood, and that I may the better maintain my position, allow me to explain more fully the modes in which I think it occurs. It is well known that there are two layers of fibres in the uterus, one the circular or horizontal, the other the longitudinal layer; the former encircling as a band the os and cervix uteri, while the latter extends from this band and passes over the fundus of the uterus. When labor commences and proceeds, both these layers contract, but after a time the circular fibres yield to the more powerful action of the longitudinal, the os uteri opens, and the vagina and uterus become one continuous and regular canal. The organic contractility continues, and the organ is freed from the foetus which it contained. Another contractility now comes into play. This is the contractility of the tissue, a property by which the womb, after having been emptied, returns gradually to its former state, and thereby has its cavity nearly obliterated. Now, at this stage there may be irregularity of contraction.

The circular fibres, constituting a sort of sphincter muscle of the womb, are relaxed and form no firm attachment for the longitudinal fibres. The longitudinal fibres, which may represent so many columns resting on this circular band as a foundation, contract, and, having no support, they begin to yield from the bottom, evolution takes place, the neck doubles in upon itself and passes through the os, the body follows, and, finally, the fundus, dragged down upon the body, preserves the same course, and we now have a complete inversion; the fundus being the *last* portion inverted, instead of the first, as has been generally, or I may say universally, admitted.

Before leaving this point I would state that I am not alone in my opinion in regard to this manner of *evolution*, for I find that Dr. John Delamater, who has had a very extensive practice, entertains the same views, and has made them public in a letter, written in April last. Allow me to read his paragraph. "The thought that inversion may, though rarely perhaps, commence at the neck of the uterus, rather than at the fundus, does not appear to me to have occurred to any one but myself, and yet it is so clear to me that it must sometimes be so, that I have been compelled to argue the point" at much length. Mr. President, this manner of inversion seems not only plausible but extremely probable. True, all authors who have treated the subject teach differently, but what is the reason? They have seldom, if ever, seen the accident: their attention has not been particularly drawn to it; and hence they have adopted this *universal* notion, which, in my opinion, is as erroneous as it is universal. If then this be the manner in which *inversio uteri* occurs, what is the cause of it? I consider it an *irregularity of action*, and by this term I do not mean an *undue* action of some of the fibres of the body and fundus, whereby a portion is drawn down or depressed, but a *want of correspondence* between the muscular action of the neck and the body of the uterus, in which there is a complete atony of the muscular fibres of the neck, which is consequently soft and yielding, and a partial action of the fibres of the body and fundus, sufficiently strong to draw it down through the patulous mouth of the womb, but not active enough to detach the placenta, which we usually find adherent. Here, then, we have an atonic and patulous condition of the os and cervix uteri, affording no impediment to the protrusion of the body and fundus, which is drawn down by the slight muscular contractions, by the traction on the cord, by the weight itself of the fundus with the placenta attached, or perhaps is *pushed* down by the superincumbent mass of intestines, aided by the contraction of the abdominal muscles. I am led to this conclusion by the fact that in numerous cases of this character the placenta remains attached to the uterus, not only after it is inverted, but even when it has protruded through the vulva, which would not be the case if the action had been excessive, for the contractions, violent enough to produce this inverted condition of the organ, would certainly be sufficiently powerful to detach the placenta.

There are other points, Mr. President, which I would be pleased to discuss, as the subject is full of interest, but I do not feel at liberty to take up any more of the time and attention of the Society at this session.

(To be continued.)

Correspondence.

DOMESTIC CORRESPONDENCE.

EDITORIAL NOTES OF THE FIFTY-FOURTH ANNIVERSARY OF THE N. Y. STATE MEDICAL SOCIETY, ALBANY.

OUR notes of the opening session of this Anniversary have been rendered unnecessary by the communication of F. F. in the last number of the TIMES. We may here remark, however, that in our judgment, PROF. LEE did not declare

himself the "champion" of the malpractice case of Fisher vs. Stone, though he boldly enunciated his opinions. In regard to DR. SWINBURNE'S paper on *Exclusive Extension in the Treatment of Fractures* we would express our appreciation. But having secured that paper for publication in the MEDICAL TIMES, our readers will require no further comments upon it. It is a meritorious and highly practical essay, based upon ample observations. We presume its author would admit, that in his own treatment of fractures he actually does secure, either incidentally or designedly, some lateral support for the fractured limb. That point admitted, his views and his practice agree essentially with those of the best surgeons everywhere.

The introduction of resolutions relating to the institution of a Commission of Lunacy constitutes one of the most important and stirring measures of the session. The resolutions urged the State Legislature to pass a particular bill, which, upon inquiry, was found to be somewhat defective, and was believed to have in view but a limited and imperfect application. The bill had manifestly been drawn up and adapted to suit a much needed want in a particular department of jurisprudence; and for that limited object it seemed well adapted, excepting, perhaps, the single exclusive provision which would shut out all persons, except physicians of lunatic asylums, from acting as experts in cases of alleged insanity. Though the resolutions were passed, and the defective bill endorsed by a majority vote, enough was known to enable the members to appreciate and approve a special report that was subsequently drawn up by Dr. Ranney, of Blackwell's Island Asylum. His report very justly reviewed the bill, and presented essential modifications and additions, which were finally adopted in full session as the sense of the Society. By those modifications the centralization of power and personal responsibility, which the original bill contemplated, will be effectually avoided. A grand defect yet needs to be remedied in the proposed measure; no provision is made for a thorough inquiry into the numbers and the individual circumstances of insane persons throughout the State.

The excellent Report on Medical Education, as presented by Dr. Townsend, has already been laid before our readers. The main propositions of that report must eventually be adopted by our medical colleges and the National Association, or under the auspices of the latter body a new and better standard and test of professional competency will be erected. The former would appear to be the more practicable plan, and we trust it may be approved by the Association, and voluntarily adopted by the medical schools.

At these meetings of the parent society, as well as in the Academy and other medical associations of our city, it is pleasant to witness the fraternal confidence and co-operation of the two grand divisions of the healing art; viz. practical medicine and scientific pharmacy. Through the medium of a special committee, under the lead of Dr. SQUIBB, of Brooklyn, the wants and purposes of practical physicians are anticipated or promptly responded to by the patient students of pharmacy; and when in the progress of discussions upon questions in practical medicine a new remedy is introduced, or the effects of particular articles referred to, Dr. S. appears not only as the champion of improved and pure pharmacy, but also as the skilled interpreter of their *modus operandi*. Though devoted to his alembics and crucibles, he is truly a brother beloved among practitioners of medicine. It is fortunate alike for the sick and their physicians that the attention of the profession is thoroughly aroused to the indispensable importance of purity in drugs, and definite standards and guards in pharmacy. Akin to this is the protection of the community against the unauthorized sale and use of poisonous drugs. The Address of the Vice-President of the Society was directed to this subject; and he showed that, in regard to opium and its preparations, there are needed very stringent regulations to diminish or prevent the pernicious and fatal employment of that article alone. Connected with this is the subject of suicides, and to the statistics and history of

this department of vital statistics and hygiene a valuable contribution was made by Dr. J. G. ADAMS, of New York. We have a pocketful of notes for a future number.

H.

A SINGULAR EPIDEMIC IN VIRGINIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—The inclosed letter, which I have recently received from a practitioner of eminence in Campbell County, Virginia, has interested me so much, that I think it would prove acceptable and profitable to your readers. I therefore place it at your disposal.

I am, Sir, with respect, yours,

T. GAILLARD THOMAS.

8 W. 14th st., Jan. 21, 1861.

In compliance with your request, I will proceed to furnish you with an account of a singular epidemic from which our community has just suffered. I regret that I kept no record of particular cases; my report will consequently be very imperfect; indeed, I can only give you an outlined sketch of some of the cases, and a general synopsis of the symptoms.

The first cases that came under my observation, occurred in October, 1859. The patients were two white boys, aged six and eight years, healthy, and of robust constitutions. The attack commenced with vomiting, headache, severe pain in the limbs and at the back of the neck; pulse feeble and accelerated; remarkable diuresis; bowels at first torpid, but after a mercurial purge sufficiently active, the dejections of a bright yellow color, unctuous and fluid, resembling very much the yolk of an egg. In a few days a papillary eruption, resembling the rash of scarlatina, made its appearance on the neck and breast, and rapidly diffused itself over the whole body, and in one case was visible on the mucous surface of the fauces and palate, causing slight complaint of sore throat; icteric phenomena were observed in both cases. The train of abnormal symptoms occupied about ten days, disappearing with general desquamation and copious perspiration; convalescence rapid.

The next case was a negro boy, about ten years of age, on the same plantation; had been sick about a week when I saw him; pulse 140, and feeble; delirium constant; jactitation and subsultus; countenance typhoid; teeth and tongue covered with sordes; bowels torpid; abdomen tumid, but not tympanitic. His master supposed him to be suffering from articular rheumatism, and upon examination I found both knees, the shoulder and elbow joint very painful, the slightest motion producing a sharp cry; one of the knees and the shoulder very much swollen; there was also some tumefaction about one eye, involving the lid, and extending towards the ear. I was informed that he first complained of great pain in the swollen knee, which continued two days, when the pain began to abate, and the joint to swell; the other knee and shoulder were next affected; fever with delirium set in, but as the white family were from home, nothing was done until their return, when I was immediately sent for. The case embarrassed me exceedingly. I did not then regard it as a phase of the same disease described in the other two cases, and, though I had never seen acute rheumatism connected with such a type of fever, I could not totally reject my friend's diagnosis. A spoonful of castor oil with fifteen drops of spirits turpentine, assisted by an enema, having fully relieved the bowels, I gave him that night five grs. Dover's powder, one-half gr. camphor, and two grs. calomel; applied chloroform liniment to the affected joints, and enveloped them in raw cotton. Next morning his appearance was somewhat improved; had rested better than at any time since his attack; answers more coherently; pulse less frequent and of more volume; complains more of his wrists than any other part. Ordered a solution of phosphate of ammonia and colchicum to be taken every four hours; continue the liniment; another

Dover's powder to be taken that night, should his former restlessness return. I never saw him again; his master informed me that he continued without apparent change until about daybreak the next morning, when he became very restless; upon attempting to give the sedative powder he found his teeth immovably clenched, and was unable to give him anything; in a short time tetanic spasms occurred, and he died in a few hours.

About a week afterwards I received a summons to attend the same plantation, where I found eight or ten of the negroes, of both sexes, and various ages, from five years to forty, quite ill, and from the same cause. The symptoms were such as I have enumerated in the three cases above described, but variously combined, and some new ones in addition, to which I shall refer hereafter. The attack generally came on suddenly, with chilliness, vomiting, headache, &c., but sometimes it would be preceded by severe pain in the fingers or toes, the larger joints becoming affected occasionally. There was generally an eruption, and jaundice occurred in about half the cases.

I was now satisfied of the identity of the disease, and that an epidemic of a novel character had appeared amongst us. My apprehensions were soon fully realized. In less than a month I had cases in eight or ten families, including my own. From that time until the last of November, a little more than a year, it existed as an epidemic; since then I have had but three or four isolated cases.

In addition to the symptoms before mentioned, I observed subsequently, pain in the right hypochondrium, with more or less tenderness, and sometimes diffused over the whole abdomen; during the winter and spring, when the eruption was less frequent, bronchitis was a usual concomitant, and as the mucus expectorated was generally tinged with bile, giving the sputa a rusty aspect, it frequently happened to the careless observer to mistake the disease for pneumonia, and even upon auscultation the subcrepitan râle of bronchitis was taken for true crepitus and the diagnosis confirmed. Among the characteristic symptoms was a pain which sometimes occurred behind the ear, giving the patient intense agony; it seemed to start from the mastoid process, and, following the sterno-cleido muscles, to diffuse itself over the sternum. It was periodic, recurring sometimes once, sometimes twice, in twenty-four hours, and lasting from fifteen minutes to two or three hours. The slightest motion aggravated it, and after it subsided would cause it to recur. In a majority of cases the prostration was very great, and complete anorexia prevailed until convalescence. Many of the patients were subject to violent cramps or spasms, affecting either the limbs, the abdominal muscles, or those of the chest. The pulse varied in different cases as to frequency, but in all cases the heart's action was feeble; in persons of a sanguineous temperament and delicate nervous organization it would sometimes range as high as one hundred and fifty in a minute, whilst in others, differently constituted, it was as low as thirty-five.

The character of the eruption was not uniform. I have seen in the same room three distinct varieties, one simulating scarlatina, another varicella, and the third resembling herpes annularis. Erysipelas and sore mouth were occasional concomitants. The brain was rarely implicated, and when delirium existed it was peculiar, reminding me of delirium tremens. In several instances the aberration of mind was confined to one subject, and continued during convalescence. An athletic negro man, after suffering a mild attack of the disease, during which no disturbance of mind was noticed, was, at his own request, allowed to do light work, when rather suddenly he attracted the attention of his fellows by his incoherent talk and expressions, indicating emotions of terror; finally, he ran off in great alarm from imaginary pursuers, and was not caught until next morning, when he was discovered five miles from home, almost frozen. These attacks were periodical, but occurred so suddenly and irregularly, that it was necessary to confine him for some weeks. In his lucid intervals he would give an account of his feelings and actions dur-

ing the paroxysms. There was but little disturbance of his physical system. The tongue was rather foul, and bowels torpid; some complaint of formation, and tinnitus aurium; his hearing was distressingly acute; but his appetite was good, and his strength did not fail. Two or three cases, somewhat similar to the above, were noticed during the year. The duration of the disease varied from ten days to six weeks. The milder attacks did not last more than two weeks, but in a good many the symptoms were developed slowly and insidiously; the eruption being very capricious, coming out partially, and then receding, until six weeks or even two months elapsed before convalescence was established. These latter cases assumed the external appearances of typhoid fever (dothenteritis), and it was only by a close attention to the abdominal symptoms that a difference could be discovered. Convalescents occasionally suffered a good deal from both neuralgia and myalgia; experiencing sometimes relief from large doses of quinine, but in a majority of instances a prolonged course of tonics with nutritious feeding seemed the only cure.

For so violent a disease the fatal attacks were very few. I attended more than three hundred cases and had but ten deaths; of these four were superannuated negroes (over 70 years of age); one child two years of age, who was teething at the time of its attack, died of convulsions; two died of tetanus, a man of thirty, and a boy of ten; one of congestion of the lungs brought on by wilfully exposing himself, while perspiring copiously, to a strong draught of cold air; one from epistaxis (a scrofulous subject), and another died, I suppose, from softening of the liver, stomach, and probably spleen. This case resembled yellow fever. The predominant symptoms were hepatic and gastric, viz. pain and tenderness in the right hypochondriac and epigastric regions; aching of the back and limbs; jaundice and vomiting; partial eruption on the forehead and between the shoulders. This state of things continued until a few hours before death; the emesis for several days resembling coffee grounds.

There were no autopsies made by me. Regarding it as a blood disease, whose determination to any particular organ was controlled by the peculiar condition or constitution of the patient (with perhaps a slight penchant for the liver), I did not think it important that I should do so.

My treatment at first was expectant and tentative, but soon observing that whenever one or more of the depurating organs acted excessively the patient improved rapidly, I availed myself of the hint, and made free use of purgatives, diuretics, and sudorifics, *pro re nata*. In the painful cases I resorted freely to opiates, generally in the form of Dover's powder, with the happiest results. To relieve the dorsal pains, which were very distressing, I found vaporizing with chloroform to answer better than anything else. Observing that those cases which were attended with bilious diarrhoea invariably did well, and recovered promptly, and that the reverse obtained, whenever the bowels were torpid and the excretion hard and dry, I considered that the use of mercury was clearly indicated. I must not forget to mention that diaphoresis to a degree of excess that I never witnessed in the course of any other disease was of frequent occurrence, and was generally critical.

The above is an irregular and discursive account of the maladies so prevalent with us for the last year. I have reason to believe from conversations with intelligent gentlemen (non-medical) from several districts of the state, that it has appeared pretty generally through Virginia, but I have seen no professional notice of the fact.

I regard it as the same disease with that known in the eastern states as Dengue or Breakbone Fever, modified perhaps by climatic influences. The only account I have ever had of Dengue, was obtained from a monograph by Prof. Dickson, which I read some fifteen years ago. Supposing it to be a disease of tropical regions, and never expecting it to reach the mountainous portions of our state where I reside, I gave the article a very cursory perusal, and have not been able to obtain it since. I therefore wish to be

understood as speaking diffidently when I assert the identity of the two epidemics.

I have no distinct recollection that jaundice was mentioned by Prof. Dickson as of common occurrence, and there was probably a difference in the duration of attack.

R. T. LEMMON, M.D.

CASTLE CRAIG, CAMPBELL Co., Va., Jan. 13, 1861.

INVERSION OF UTERUS.

PROFESSOR C. A. LEE'S REMARKS BEFORE THE STATE MEDICAL SOCIETY.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—The allusion to myself in the letter of your Domestic Correspondent (F. F.), from Albany, seems to require some explanation on my part. He says, the Society very "patiently listened to my extended account of the Chicago case," and that I "very unnecessarily reiterated my well known opinions respecting that case," and that "the subject was not acceptable to the members present," etc., etc.

F. F. perhaps may recollect that at the morning session, Dr. Brinsmade, of Troy, suggested that I should state my views to the Society on the general subject of "Inversion of the Womb," and being invited by the President, Dr. Jones, to do so, I stated that it would take up considerable time; that as it was then half-past two, and we dined at three, if the members of the Society wished to hear the subject discussed, I had no objection to occupy a part of the afternoon session. A motion was made and passed unanimously, that I should be invited to address the Society at that time. I may sincerely say, that I had no expectation or desire to say a word on the subject. I should much have preferred to have had any other member occupy the time than myself, and they will bear me witness that I have never encroached upon their time, or claimed their attention for any communication for many years past. It will be recollected, too, that I was not the first to bring up the Chicago case; it had been introduced by Professor Quackinbush, of Albany, and considerable curiosity existed to hear more of the particulars regarding it, and of the principal points involved in dispute. I felt that there was no impropriety, at least, in my commenting pretty freely on the case, inasmuch as the trial was ended, and one of the medical witnesses, of great eminence, had published his testimony some time before the case came to trial. I may have spoken too freely of Dr. Fisher, and I probably did; if so, it was in relation to his unwillingness to leave the case to the decision of medical men, as was proposed by the defendant. We all know that ordinary juries are quite unfitted to decide medico-legal cases like this, and no physician should be unwilling to place himself in the hands of his professional brethren. I think it also very probable that I occupied more of the time of the Society than was profitable—indeed, I am pretty sure I did—but I saw no signs of impatience on the part of a single member; on the contrary, they all seemed to listen as if they felt interested in the matter. It was this circumstance only, perhaps, that misled me, if I was misled; for if I had believed that I was wearying the patience of a single person, I should have felt unwilling to have gone a single step further. F. F. will at least acknowledge that, when the "Professor of Brevity," with his characteristic abruptness, suggested that there might be other subjects more interesting to be brought forward, I very willingly yielded the floor, as I should have done at any time previous.

C. A. LEE, M.D.

February 11, 1861.

SCARLET FEVER AND DIPHTHERIA IN IOWA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—SCARLET FEVER has prevailed uninterruptedly in this place during the past sixteen months. Its type, though generally mild, has occasionally exhibited the most malignant character. More than the usual amount of grave sequelæ have

resulted, and more often in the mildest cases. A majority of the cases could not be traced to contagion, and in most instances, but one family in a neighborhood suffered from the disease at the same time. A very large proportion of children who have not had scarlatina, remain unaffected after exposure. The attendant mortality has averaged about seven per cent.

Diphtheria has also been prevalent in this vicinity during the past six months, and the cases of late seem rather increasing in frequency and severity. Children from two to ten have been the principal subjects of attack, although infants and adults have occasionally suffered from its mild form. It seems to have no necessary connexion with scarlatina, often preceding or following, and sometimes co-existing with it. In most instances the affection has been very mild in character, but sometimes has proved rapidly fatal. The proportion of deaths has been very nearly the same as that above-named for scarlet fever.

The treatment most generally pursued has been chlorate of potassa internally, cauterization with nitrate of silver, cold cloths and anodyne embrocations to the tumefied cervical glands, and the free exhibition of stimulants and tonics, with liberal diet throughout the disease. The writer has used with good effect chlorate of potassa in *tar water*, for the removal of the fetor and the detachment of diphtheritic incrustations. It was administered internally, used as a gargle, and also for a nasal injection. In some of the severest cases of late, Prof. Woodward's mercurial plan has been resorted to with satisfactory results.

ASA HERR, M.D.

DEBUE, IOWA, January 20, 1861.

Medical News.

MARRIAGE.

WILLIAMS—CRASTO.—At Harlem, February 6th, by the Rev. Valentine Buck, Augustus P. Williams, M.D., to Carrie A., eldest daughter of Col. M. E. Crasto, all of New York.

DOMESTIC ITEMS.—Dr. John A. Brady, of Brooklyn, one of the surgeons of the Metropolitan Police, has resigned his position owing to the pressure of private practice.—Dr. Darling, of Ryegate, Vt., recently extracted a portion of a needle, three quarters of an inch long, from the eye of a lad.—Dr. Trenchard, of Philadelphia, has been appointed Port Physician.—Dr. A. Hewson has been elected Surgeon to the Pennsylvania Hospital.—Dr. Moriarty, Superintendent to the House of Industry, Deer Island, Boston, has been removed from that position.—Dr. S. L. Abbott, succeeds Dr. Ellis as Editor of the *Boston Journal*.—Dr. J. S. Jones succeeds Dr. H. G. Clark as City Physician of Boston.

SEAMAN'S FUND AND RETREAT.—The Annual Report of the Physician in Chief and auditing committee, for 1860, shows that the admissions of the past year exceeded those of 1859 by 162, while the mortality list numbers two less. The whole number received was 1,266. There were remaining in the house on the last day of the preceding year, 124, making a total of 1,390 inmates during the course of the past year. Of this number there were discharged, cured, 1,027; relieved, 139; by request, 34; died, 62. Total number discharged and died, 1,262. Still under treatment in the house on the 31st of December, 1860, 128. The average proportion cured during the year, based upon the whole number discharged, was 81½ per cent.; relieved, 11; discharged by request, 2½; of deaths, 4⅞. The average daily number in the house during the year was 131. The average duration of time spent at the Retreat by each patient discharged was 26½ days. The average age of the Seamen who died during the year 1860 was 31½ years. The ratio of mortality for the last year is slightly less than that of the preceding one; as usual, the list is made up chiefly from the subjects of chronic disease.

Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE IV.

At the last lecture but one, gentlemen, you will remember I spoke of a peculiar inflammation of the eyeball, which results from division of the fifth pair of nerves. I show you to-day this cat, in which the division was performed a fortnight ago, in order that you may see the progress which the inflammation of the eye has made up to this time. When you last saw the animal, five days ago, you will remember that the cornea was already ulcerated, and the conjunctiva inflamed; and there was besides a great deal of subconjunctival œdema. At that time the perforation of the cornea appeared to be imminent, and since then it has actually taken place. Evacuation of the fluids of the anterior part of the eye has occurred, and the edges of the ulcerated opening have been covered with a fibrinous exudation. On looking at the eye, you will see, in the first place, that it appears smaller than the other; and secondly, on feeling the eyeball, you will find that it is very much softer than its fellow of the opposite side. This is owing to the partial discharge of the fluids, and consequent loss of tension in the eyeball. The whitish or yellowish white exudation which has been thrown out about the edges of the ulceration in the cornea is also plainly seen. This inflammation, as you see, is destructive in its tendency, at the same time evidently painless in character. These two facts will enable you to distinguish it from ordinary inflammations of the eye.

To-day, gentlemen, we shall pass on to the consideration of two nerves which we have not yet examined, viz. the *glosso-pharyngeal* and the *hypoglossal*. These two nerves are very properly studied in connexion with each other; in the same manner as we have already studied together, first, the three nerves distributed to the muscles of the eyeball, and secondly, the different divisions of the fifth pair. One of these nerves we shall find to be sensitive in character and the other motor. The *glosso-pharyngeal* nerve originates by several filaments from the lateral and anterior portion of the medulla oblongata. It then runs almost directly from within outwards, and enters, as you will remember, the posterior foramen lacerum in company with the pneumogastric and spinal accessory nerves. Then, as it passes through the bony canal, in this situation it presents upon its surface a small reddish-colored ganglion, which is known by the name of the "ganglion of Andersch." Emerging from the inferior extremity of the canal, the nerve then passes from above downwards, and from behind forwards, and is distributed to the mucous membrane of the posterior third of the tongue, and the upper part of the pharynx. The nerve is then called the *glosso-pharyngeal*, on account of its double distribution, viz. to the tongue in front, and to the pharynx behind; and it is also distributed partly to muscular tissue and partly to the mucous membrane—it is a mixed nerve so far as its function is concerned. Before this nerve has emerged from the cranial cavity it is essentially a sensitive nerve. Irritation of its fibres in that situation has been found to be productive of painful sensations but not of any convulsive movements; whereas, if we irritate the nerve after it has left the cranium, sensation and convulsive motion are both produced.

There have been a great number of experiments performed upon the *glosso-pharyngeal* nerve by Dr. Reid, AM. MED. TIMES, VOL. II., No. 8.

Longet, and other experimenters. The sum-total of these results I will give you in as few words as possible. I have already said that irritation of this nerve at its origin proves it to be, in that situation, a sensitive nerve alone; whereas, irritation applied outside of the cranial cavity proves that it is there a mixed nerve, containing both sensitive and motor filaments. It obtains these motor filaments from inoseulation with other motor nerves, more especially the facial. Now if the *glosso-pharyngeal* be divided after it has emerged from the cranial cavity, as it is in that situation a mixed nerve, containing both sensitive and motor fibres, we shall be prepared to find that this division destroys both sensibility and the power of motion in the parts to which it is distributed. It has been found, accordingly, that if this nerve be divided, the power of sensation is lost in the mucous membrane of the posterior third of the tongue, and in that of the upper part of the pharynx. In this connexion I will remind you of the manner in which the mucous membrane of the tongue is supplied with sensitive filaments. You will observe that the tongue is supplied with sensitive fibres by two different nerves, its anterior two-thirds by the lingual branch of the fifth pair, and its posterior third by the *glosso-pharyngeal*; so that if we divide the lingual branch of the fifth, we destroy ordinary sensation in the anterior two-thirds of the organ, and leave its posterior part uninjured, and *vice versa*.

But this is not the only, or the most remarkable effect, produced by division of the *glosso-pharyngeal* upon the function of the tongue. For the mucous membrane of the tongue, you will observe, has two distinct properties, viz. First, the property of *general* sensibility, by which it is enabled to appreciate the mere contact of solid bodies, together with the variations of temperature; and secondly, a *special* sensibility of taste, by which it is enabled to judge of the savory qualities of bodies. Now it is found that after division of the two sensitive nerves, which I have mentioned as being supplied to the mucous membrane of the tongue, the paralysis which follows is distinguished, not only by the loss of ordinary sensation, but also by that of the special sensibility of this part of the mucous membrane.

A few words here, gentlemen, with regard to the nature of the special senses in general, and more particularly in regard to that of taste. We have already seen that the special senses are those by which we appreciate peculiar and specific impressions: the impressions of light, for example, by the sense of vision; the impressions of sound, by the auditory sense, and the apparatus of hearing; and the impressions of savory substances by that of taste. Now there are certain nerves which are called *nerves of special sense*, because the impressions which they convey to us are different in their nature from those which we receive from those of the general integument. But of all these special senses, that of taste is the least peculiar, and has more resemblance to the general sensibility of the skin than any other. For, in the first place, the sense of taste is the only one which does not have a distinct organ, a distinct nerve, and a distinct apparatus for the performance of its function. Look, for example, at the apparatus of vision. Here you have an optic nerve, which is capable of receiving the impressions of light, and those *only*. It is not a sensitive nerve in the ordinary acceptation of the term. If you divide the optic nerve, it does not destroy the general sensibility of the eyeball, but only its power of receiving visual impressions. This is the case also with the auditory and olfactory nerves. In these instances, the peculiar nervous sensibility of the organs of special sense is specific. Each organ is supplied by a single nerve, which has that particular office to perform, and no other. In the sense or taste, however, we have an instance in which the same peculiar power is exercised by the mucous membrane of the tongue, and by that of the upper part of the fauces. This mucous membrane is similar in its structure to many other mucous membranes, and also to the skin. It consists of a corium covered with epithelium, and raised into a great

number of conical, or filamentous, vascular and nervous papillæ, entirely similar in their structure to the papillæ of the skin. Furthermore, in order to appreciate the taste of foreign bodies, these bodies must be actually brought into physical contact with the mucous membrane of the tongue. We can appreciate the appearance of bodies at a distance by the sense of sight, and ascertain their form, color, &c. We can distinguish distant sounds by the ear, and distant odors by the sense of smell. But the sense of taste is different in this respect, for it requires the actual contact of the foreign body with the mucous membrane of the tongue or pharynx.

A third peculiarity of this sense is, that the same nerve supplies the tongue, at the same time, with special and with general sensibility; and lastly, one part of the mucous membrane exercising the sense of taste, is supplied by a branch of the fifth pair, and another part by the glosso-pharyngeal nerve, which is distinct from the fifth pair in its origin, course, and distribution.

In this specimen you see the origin and part of the course of the glosso-pharyngeal nerve. It originates, as you see, from the middle and anterior parts of the medulla oblongata, emerges from its bony canal, and then passes downwards and forwards to be distributed to the posterior part of the tongue and upper part of the fauces.

Such are the properties which reside in the glosso-pharyngeal nerve. You observe that they are partly general in their nature, and partly special; partly intended to supply ordinary sensibility to the corresponding mucous membranes, and partly to perform, to a certain extent, the office of the sense of taste.

We will now pass on to the study of the other, the *hypoglossal* nerve. This nerve originates further back than the glosso-pharyngeal, and more from the inferior portion of the medulla oblongata. Then running directly forwards, it passes through the anterior condyloid foramen, passes from above downwards, and is finally distributed to the muscular substance of the tongue. The hypoglossal is essentially a motor nerve. It originates from the anterior columns of the medulla oblongata, the continuation of the motor tract of the spinal cord, and is distributed to muscles and to muscles alone. Now how do we ascertain that this is a motor nerve? It is by the same mode of experiment that we have heretofore adopted. If we irritate the hypoglossal nerve, we produce a contraction in the muscles of the tongue, and this is the only marked and palpable effect of the operation. If we divide the nerve, we paralyse the muscles or the tongue on the injured side, in the same manner as we paralyse the superficial muscles of the face by division of the facial nerve.

I have here a dog in which the hypoglossal nerve was dissected out a short time ago, at the situation where it passes from behind forwards along the side of the neck, just below the hyoid bone, between the bone and the upper edge of the thyroid cartilage. I will now etherize the animal, and as soon as he is fairly under the influence of the anæsthetic, I will open the wound, expose the nerve, and irritate it by the passage of a galvanic current. You will then have an opportunity of observing the effects which are produced.

At the deepest part of the wound we now see the nerve, and I will introduce under it a slender glass rod, so as to raise it somewhat out of its bed, and then apply to it the poles of the galvanic battery.

The tongue is now hanging loosely out of the animal's mouth, but the moment I apply the poles of the battery to the hypoglossal nerve, you see that its muscles contract violently on the corresponding side, and the tongue is drawn convulsively into the mouth.

Here, therefore, we have the tolerably simple functions of these two nerves demonstrated, the glosso-pharyngeal on the one hand, and the hypoglossal on the other. You observe that a division of the glosso-pharyngeal paralyzes sensation, both special and general; while the hypoglossal presides over the power of motion in the same organ.

Now there are several very important points, gentlemen, with regard to the division of nerves, to which I shall call your attention during the remainder of this lecture.

In the first place it is a fact, now pretty well established, that division of a nerve, although it paralyzes immediately the parts to which the nerve is distributed, does not paralyse those parts permanently. That is to say, a divided nerve, contrary to what was at one time supposed, may unite and recover its function, in the same manner as a divided muscle or a broken bone. Otherwise any wound which cuts off a certain number of nervous filaments would necessarily produce a permanent local paralysis of motion and sensibility, to a corresponding extent. Now we know that this is not the case; but that, in surgical operations which require deep dissection, local paralysis, as a consequence, is seldom or never permanent. Now, I have already called your attention to an instance of this regeneration of divided nerves in an animal which you saw a week ago—in which the fifth pair had been divided upon the right side three and a half months before. I told you at that time that immediately after the operation the usual effects of this division were apparent, viz. complete loss of sensibility in the integument and mucous membrane of the corresponding side of the face. This condition lasted for many weeks, but at the end of a certain period the animal began to recover the powers which she had lost. I will now show you the animal again; in order that you may see to what extent this has taken place. Immediately after the operation sensibility was completely abolished, as I have told you, on the right side of the face; so that when I touched the mucous membrane of the orifice of the nares with the point of a needle, not the least trace of sensation was manifest. But since the 1st of January this sensibility has been returning, and, as you see, it is now tolerably distinct. In this animal perforation of the cornea and evacuation of the eye took place, after which the ulcerated parts healed over. There is now a well-marked opacity of the cornea at the spot where perforation occurred; and at the inner end of this opacity, there is adhesion of the iris to the cicatrix. At first the cornea was completely insensible, as I have already mentioned; but now you see very plainly that its sensibility is returning, as well as that of the nose and the lips. Beside this, the animal has recovered, to a great extent, the power of mastication on the right side, which was lost at first, owing to the paralysis of the muscles of the lower jaw; and if two fingers be placed on either side of the jaw while the animal is feeding, the contraction of the right masseter muscle can be distinctly felt, although it is still less powerful than on the opposite side. So in this animal, in the course of three and a half months, both sensibility and the power of motion have, to a certain extent, been regained.

Here is another instance of a similar kind. In this animal (a cat) three and a half months ago the facial nerve was divided upon the left side; and the consequence of that division was, as usual, paralysis of the muscles moving the external ear, the orbicularis oculi, and the superficial muscles of the face generally. The animal, immediately after the operation, was unable to close the left eye or to move the left ear. Now, by irritating the posterior surface of the left ear, the movements of the organ are again very distinctly excited, though still less vigorous than on the opposite side. So it is with regard to the orbicularis oculi. On touching the cornea of the right or uninjured side you see that closure of the eyelids is complete; while upon the left side this closure is only partial, but still very much more considerable than it was immediately after the operation.

We find, therefore, that a healthy nerve, be it sensitive or motor, if divided transversely, will unite, and its function will be re-established. Now, it has been found by various experiments, not only that this is the case, but also that if a portion of the nerve be cut out, the excised part will frequently be regenerated. That indeed has been the case in the last animal shown you, where the nerve was excised for the length of about one half inch, and has been

regenerated to the same extent. Bidder, in Germany, and Valentin, in Switzerland, have also come to the same conclusion. They have found that the nerve may be regenerated, if cut out, to the extent of three-quarters of an inch to an inch.

Various other experiments of a very curious nature have also been performed, since this first and most important truth was discovered. These experiments were instituted with a view of ascertaining whether the *filaments belonging to one nerve* could be made to *unite with those belonging to another*; and whether motor filaments could be made to unite with sensitive filaments, either of the same or different nerves. Flourens, in France, was the first who undertook this line of investigation. He experimented upon the nerves distributed to the wing of the cock. There are two branches of the brachial plexus in this animal; one branch distributed to the muscles of the upper side, the other to those of the lower side of the wing. Flourens divided both these branches, and then crossed their ends in such a way as to bring the divided extremity of the upper nerve in contact with that of the corresponding nerve on the lower side, and *vice versa*. He then closed the external wound, and allowed it to heal; and after a time found that the union of the two nerves in their new situations was complete. Immediately after the operation the muscles of the upper and under side were equally paralysed. After a time it was found that the bird began to recover the muscular power of both regions, and finally over all the muscles of the wing. On examining the wound afterwards it was found that the nerve of the upper side had united with the nerve of the under side, and that of the under side had united in the same way with that of the upper. On exposing these nerves and irritating them, it was found that irritation above the wound, applied to the trunk of the nerve which naturally supplied the upper side of the wing, produced contraction in the muscles of the lower side; and that upon irritating the branch which naturally supplies the lower side, the muscles of the upper portion of the wing were thrown into contraction; thus showing not only that the two divided extremities of the nerve had united with each other, but that a physiological communication had also been established between them, in this unnatural direction.

Is it true, however, that motor filaments may be made to unite with sensitive filaments? Schwann, in Germany, endeavored to settle the question in the following way: He divided the sciatic nerve of the frog in the thigh, and allowed the wound to heal. He then exposed the spinal cord, at the point where the anterior and posterior roots of the sciatic nerve are given off, divided the posterior roots, and irritated them by a galvanic discharge. He wished to ascertain, by this, whether any of the sensitive filaments of the nerve had united with motor fibres, and whether consequently the muscles of the leg could be made to contract by irritating the posterior or sensitive roots of the nerve. The result of the experiment, however, was negative. Schwann found that irritation of the posterior roots of the nerve did not produce any contraction in the muscles below. Therefore, either none of the sensitive filaments had united with the motor fibres of the nerve below; or else, this union having taken place, the sensitive filaments were incapable of communicating any stimulus to the motor fibres.

A more remarkable series of experiments with regard to this same question were those undertaken by Gluge and Thiernesse in Germany. They operated upon two of the cranial nerves, one almost exclusively sensitive, the other almost exclusively motor, viz. the lingual branch of the fifth pair, and the hypoglossal. A wound was made in the side of the neck, and the lingual and hypoglossal nerves were exposed and divided. Then, the extremity of the lower part of the hypoglossal was simply united with the extremity of the upper part of the lingual, and the wound was closed. But upon examining the animal afterwards, it was found that in this case all four extremities of the divided

nerves had united together into a single cicatrix; so it was impossible to tell which nerve had united with which. In order to avoid this difficulty, the plan was afterwards adopted of uniting together, as I have already said, the lower part of the hypoglossal and the upper part of the lingual, and then dissecting out the remaining portions of each nerve, for the full extent of the wound. The two nerves, the lingual and hypoglossal, were thus allowed to remain in contact with each other; and at the end of a certain time it was found that they had united with each other by a firm ribbon-like cord which contained in many instances nervous filaments completely distinguishable by the microscope. Notwithstanding this union, however, a galvanic electric discharge, passed through the lingual nerve, did not produce any contraction in the muscles of the tongue below; demonstrating the fact, that although sensitive and motor filaments might become united anatomically with each other, there was, nevertheless, no physiological relation between them, and no nervous stimulus could be communicated from one to the other.

Now in doing these experiments, various other points were established at the same time. For example, it was found, after exposing the hypoglossal nerve, that on grasping it with the forceps, certain signs of pain were produced. Now we know that this is exclusively a motor nerve at its origin; but there are certain sensitive filaments which afterwards enter into its composition, and which are due to insinuation with other cranial nerves. In the same manner the facial nerve, which is itself exclusively motor, receives sensitive filaments from certain branches of the fifth pair. The converse is true with regard to the lingual branch of the fifth pair; for although sensitive at its origin, it is joined in its course by a fine bundle of motor filaments, constituting the *chorda tympani*. Thus both these nerves, although exclusively motor or exclusively sensitive at their origins, become mixed nerves before they reach their final distribution.

Original Communications.

DIFFICULT OBSTETRICAL CASES,

BY GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

CASE X.—*Ruptured Uterus—Version—Death of Mother and Child—Anterior Uterine Obliquity—Brow Presentation.*—Nov. 24, 1860. I was called in consultation, by Dr. Owen Sweeney, to Mrs. —, and found Dr. Bishop and Dr. James Sweeney present. The patient was a multipara, who had been apprehensive of the result of this confinement from the great anterior obliquity of the uterus. The membranes had ruptured at the commencement of labor, and Dr. Sweeney had recognised the forehead as the presenting part. The labor was tedious, and the pains not remarkably severe, but referred for the most part to the right iliac region. With the aid of a sheet Dr. S. gently and carefully strove to remedy the great uterine displacement, the patient resting on her back. No oxytocic preparation was used, nor was anything done to advance the labor beyond the means referred to. After some twenty-four hours the patient complained that the pains were very severe, and different from labor pains, referring her chief sufferings still to the right iliac region. Collapse soon followed, with total cessation of uterine contractions, and much vomiting of a dark fluid. Six hours subsequently I saw her, and found her collapsed, cold, pale, and with a feeble pulse. The marked anterior obliquity was very striking, though not so much as Dr. S. had previously observed. Pain was complained of on pressure over the right iliac region. Vaginal examination disclosed an extensive laceration of the posterior lip and vaginal cul de sac,

through which the whole hand readily passed into the peritoneal cavity, where the head of the child could be distinctly felt to the right of the lumbar vertebrae. So near death did she seem—the child being so already—that I felt loth to embitter her last moments by an operation; to which conclusion the gentlemen present had already arrived. We separated with the understanding that if she could be rallied we would meet again. Dr. Swcney succeeded in doing so, and in about ten hours we met again. Dr. Bishop having distinctly appreciated the condition of things, I turned with facility, and delivered by the feet a well grown dead child. No chloroform. The uterus contracted well, but she died in about fourteen hours. No post-mortem.

Remarks—Although I cannot imagine the fate of this poor woman would have been changed if version had been performed at an earlier period of labor, I am still sure that it was wrong to yield to the extreme reluctance which one so naturally felt to subject the poor creature to version while so near death. I can truly say that I have often regretted to have delayed the performance of obstetrical operations, but have never regretted to have resorted to them too soon. Hereafter, when called to these distressing cases of ruptured uterus, I will deliver at once, if the patient be alive, and the operation feasible, in the belief that it is my duty, and in the hope that the result may be as unexpectedly gratifying as in another case detailed in this paper.

CASE XI.—Ruptured Uterus—Version—Death of Mother and Child.

In addition, however, to the effect produced on all the consultation by the piteous condition of our patient, we recalled the fact of our having all met together but a few months before by the bedside of a woman believed to be the subject of the same accident, although the precise site of the laceration was not determined. In that case the patient was collapsed when I saw her, still I delivered by version, but she only survived three hours; no chloroform.

CASE XII.—Rupture of Uterus—Presentation of Brow, Hand, and Funis—Death of Child—Delivery by Version and the Crotchet—RECOVERY OF MOTHER.

On Thursday, November 25th, 1860, I was called by Dr. Slevin to see Mrs. McDonald, in labor with her second child. The first labor had been severe, but had terminated naturally, and the child was living. The present one had continued for eighteen hours, when the patient complained of a sharp, agonizing pain in the left iliac region, and no more uterine contractions took place. Before this event Dr. Slevin had recognised the presentation of the brow, and the tips of the fingers of one hand, but no effort had been made at any obstetric operation, nor had any oxytocic preparation been given. Subsequently to the occurrence of the sharp pain referred to, the presenting-parts had receded, and Dr. S. had diagnosed rupture of the uterus. When I saw her she was very weak, unwilling to stir or permit pressure over the seat of pain; vomiting a clear green fluid. Pulse 130, and feeble. On vaginal examination I recognised the brow above the plane of the superior strait, the fingers of the left hand by the side of the head, and a loop of *pulseless* funis. Within the cervix, to the left, was a longitudinal fissure, which did not involve the entire thickness of the cervix. We decided on version, and after giving the woman some stimulus, and getting her in position with the hips over the edge of the bed, I proceeded to perform that operation—no anæsthetic being given, on account of the collapsed condition of the patient. The dorsum of the child being next the abdomen of the mother, I passed my right hand gently along the posterior uterine wall, and disregarding the right hand, which was on a level with the fetal face, the right foot was soon reached, and after having drawn that without the vulva, the other was readily disengaged, and the arms gave no trouble. Notwithstanding all my care, however, extension of the head took place, and the chin became firmly lodged against the left ilium, nearly on a line with the linea ileo-pectinea. Manual efforts having failed to complete the delivery, I

passed the blunt hook within the mouth, and pressing the perforator strongly against the occipital bone, fractured the jaw-bone without dislodging the head, and then having perforated the occipital bone, and evacuated the brain, the delivery was terminated with the crotchet. My hand being now introduced within the vagina enabled me distinctly to recognise that the longitudinal fissure referred to (as recognised in the cervix before delivery) extended through the left side of the uterus, and on passing two fingers through the rupture into the abdominal cavity, I touched a loop of intestine, and the peritoneal coat of the abdominal wall. The other hand placed over the left iliac region enabled me distinctly to appreciate that nothing but the abdominal wall was interposed between them.

On removing my hand I withdrew the placenta without difficulty, nor did any hemorrhage of moment take place. Contraction of the uterus followed, and was aided by $\frac{3}{4}$ ij. of the saturated tincture of ergot and by ice in the vagina. Most of the ergot was vomited, however, though the color of the fluid rejected by the stomach had become so dark before its exhibition as to be scarcely affected thereby.

The patient being replaced in bed, and the best measures taken to promote reaction, we felt obliged to give the most unfavorable prognosis possible, and separated without making any appointment for further consultation. The child was a male, and of large size.

On the 26th November, being in that vicinity, I called to learn her fate, and found her doing moderately well—the vomiting still persistent—pulse 100.

December 4, I again saw her—the abdomen swelled and tender—some milk—no lochia.

In the latter part of the month I again called and found that she was out walking, and had quite recovered.

Dr. Slevin informs me that he treated her with a moderate use of sedatives and stimulants.

CASE XIII.—Rupture of Uterus at its vaginal attachment—Stillborn, putrid Child—Forceps—Death of Mother.

This case occurred in Bellevue Hospital, and is reported by Dr. Hicks, House Physician in charge of the Lying-in wards at the time.

Catharine Logan, Ireland, married, aged thirty, second pregnancy, menstruated for the last time in January, 1860. Labor commenced October 1st, 1860, at 4 p.m. Presentation L. O. A. Labor terminated October 2d, at 11.15 a.m. 1st stage, four hours; 2d, fifteen hours; 3d, fifteen minutes. Child male, weight ten pounds, stillborn and putrid.

The labor seemed to progress favorably until about 10 p.m. October 1, when the head ceased to advance. Up to this time the pains had been strong and efficient, but now ceased. At the same time the patient commenced to vomit, and this continued almost unceasingly throughout the night. On examination, at about midnight, the pulse was somewhat, though not markedly, increased in frequency, but considerably diminished in force; and at six a.m. October 2, it was found to be scarcely perceptible at the wrist. The surface was cold and damp, the countenance anxious, the vomiting still persistent, thirst excessive, and in short the patient presented the appearance of almost absolute collapse. Brandy and carbonate of ammonia internally, bottles of hot water to the feet, and friction, produced no perceptible effect beyond a slight and temporary increase in the force of the pulse. Dr. George T. Elliot was then sent for and arrived at about nine a.m. Drs. Taylor and Barker were sent for in consultation, but both being out of town, Dr. Elliot proceeded to deliver with forceps, an operation demanding considerable tractive effort on account of the large size of the child, which from appearance seemed to have been dead several days, as the skin could be readily detached. No anæsthetic was used, the condition of the patient sufficiently contra-indicating its employment. Hemorrhage, although anticipated, did not occur, and the uterus contracted down promptly and remained firm and hard. Brandy and morphine were now administered freely, while a stimulating lotion of brandy, salt, and the tincture of capsicum, was applied to the surface. These

measures seemed for awhile to produce a favorable effect, the pulse appearing to increase somewhat in volume—though the vomiting still continued with unremitting activity and persistence unto the end, notwithstanding a large variety of expedients were adopted for its relief. From this time forward no perceptible change occurred in the condition of the patient until Thursday, October 4, when she died at six A.M. It should have been remarked that although frequent attempts were made to nourish the patient by the mouth, they were invariably abortive, being instantly ejected from the stomach, and, after three or four enemata of beef tea and brandy, as promptly by the rectum.

Post-Mortem examination disclosed a rupture of the vagina at its posterior cul de sac, at its junction with the uterus, through which Dr. Ferguson, having introduced his hand in the abdomen, easily passed two fingers into the cavity of the uterus. There was a large effusion of clotted blood in the peritoneal cavity which escaped when the abdomen was opened, but no other evidences of inflammatory action than a slight injection of the intestinal serous coat could be found. The uterine tissues in the vicinity of the rupture were softened and infiltrated with blood; uterus well contracted. The pelvis seemed sufficiently roomy, but the promontory and linea ileo-pectinea presented a sharp and prominent edge, though without projecting spiculae.

The examination of this case was not more thorough, because from circumstances it was of necessity strictly confined to the elucidation of the cause of death, which, it is needless to say, had been anticipated.

Forceps was selected from the belief that the foetal heart had been heard at an earlier period of the labor.

CASE XIV.—Rupture of Uterus.—Patient died Undelivered.—DR. HAWTHORN, House Physician.

This patient, named Canet, in the eighth month of her ninth pregnancy, was admitted into Bellevue under the following circumstances. She had been under the care of three physicians—names unknown—for uterine hemorrhage, supervening on violent exertion. Subsequently, Drs. Griscom and Connery were called, as her former physicians had left and did not propose to return. She was then flowing, nearly pulseless, complaining of burning pain in the epigastrium, and vomiting incessantly. The hemorrhage was checked by acetate of lead and opium, the pain somewhat soothed by a hop poultice. Suspecting placenta prævia, Dr. C. introduced an alum plug and sent her to the Hospital. She entered Sept. 23d, 1859, moribund, and unable to retain anything on the stomach or in the rectum. No hemorrhage. A tampon was introduced by Dr. Hawthorn as a precautionary measure, and Dr. Geo. T. Elliot sent for. On his arrival he removed the tampon and found the os dilated to the extent of one and a half inches, and not further dilatable. Patient evidently not at full term. The cervix contained offensive clots and shreddy material, but the placenta could not be reached. The abdomen was much swollen, excessively tender, and very emphysematous below the umbilicus, especially in the right iliac region. The outlines of the uterus could not be mapped out, nor could an extra-uterine foetus be detected through the abdominal walls. Neither foetal heart nor uterine souffle audible. The flow had completely ceased. Under these circumstances delivery being impossible per vias naturales, Dr. Elliot requested that compressed sponge should be introduced within the cervix, and the tampon be applied in the event of the return of hemorrhage, and that the patient should be stimulated by enemata and the hot air-bath.

Dr. Hawthorn had already bandaged the legs. Dr. Elliot requested that a consultation should be called for 4 o'clock (one and a half hour later), but the patient died half an hour afterwards, after an access of vomiting. The uterine hemorrhage had not returned. The hot air-bath produced profuse perspiration almost immediately, and was, therefore, stopped.

Autopsy, eighteen hours after death.—Weather murky and

warm; cranial and thoracic cavities not opened. Much frothing at the mouth. Abdomen stained green around the umbilicus and at the sides. Tympanitic. Emphysema within abdominal cavity quite appreciable. Abdomen opened by crucial incision and was followed by a great escape of gas. No emphysema of abdominal walls. Peritoneum intensely injected. Clotted blood removed to the extent of twenty-four ounces avoirdupois, and a large quantity of fluid blood escaped without its amount being appreciated. The foetus in its amnion, and with a greater part of the decomposed placenta attached, was found in the cavity of the abdomen. The foetus crepitated on pressure, and the bones of the head moved on each other. The well known attitude of the foetus in utero was preserved. The intestines were removed, and the blood sponged out, when the rent in the uterus was distinctly seen to extend from the centre of the fundus along the mesian line downwards, and laterally for five inches and a half. No laceration of the vagina—vaginal walls crepitated on pressure. Fingers introduced within the vagina visible through the uterine rent. Pelvis normal, with the exception of the spine of the right ischium, which was somewhat elongated and turned up. No bony projection, sharpness, or spicula, to be found, which could have influenced the case. The uterus was put in alcohol, and microscopic examination omitted. The specimens were all shown at Dr. Elliot's clinic in the College of Physicians and Surgeons, September 30, 1859.

CASE XV.—Placenta Prævia—Delivery by Version at about the seventh month after much trouble with an Undilatable Cervix, and previous partial separation of Placenta by the finger.—Subsequent Peritonitis—Death of Child—Recovery of Mother.—Five additional cases of Placenta Prævia.

July 24, 1859, Dr. Bishop sent for me to Mrs. —, pregnant for the ninth or tenth time, in whom version had been performed on a former occasion by Dr. B. for shoulder presentation.

She was now greatly weakened from loss of blood; the first hæmorrhage having taken place a little more than three weeks before, and after that interval of time the present had commenced and continued for a couple of days, to such an extent as to demand the tampon, which Dr. B. had applied. The os uteri was dilated enough to allow the finger introduced within the cervix to detect the edge of the placenta on the left side. The cervix was not dilatable. No change having taken place in that respect during the next twenty hours, and her condition imperatively demanding relief, we applied as large a sponge tent as could enter the cervix and then tamponed the vagina with cotton and a T bandage. This was done in the night, and on the following day at noon, in spite of all that could be done in the interval in the way of stimulation, it was evidently necessary to terminate the labor, although we distinctly declined to guarantee her life during the delivery.

With one assistant feeding brandy the task was commenced. The tampon and sponge tent being removed, it was found that the os was not sufficiently dilated to admit the hand. But fortunately the position being one obliquely transverse, I succeeded in touching a foot with the tips of the fingers which had penetrated within the uterine cavity, and by external manipulation forced down the limb with the other hand so as to obtain a good grasp and to enable me with much difficulty to complete a laborious operation, the difficulties of which were prolonged to the last by the sullen unyielding grasp of the foetal head by the cervix. Before proceeding to turn, however, I separated the placenta as far as my finger would reach, but I cannot tell whether much blood flowed during the operation or not, though I do believe that any further loss would have cost her her life. The small portion of placenta yet attached having been separated, we gave ergot and opium, with beef tea and stimulants freely. She subsequently suffered from an attack of peritonitis, for which she was treated by Dr. Bishop, and is now (Dec. 1860) perfectly well.

Remarks.—On reviewing this case the first thought in my mind is gratification at the result, for the patient's con-

dition was dangerous in the extreme. The period of the pregnancy and the singular rigidity of the cervix, with the appalling loss of blood before my arrival, rank this with the most difficult cases of placenta prævia. The sponge tent introduced within the cervix and the cotton tampon were probably the only means that allowed delivery to be effected, and although I regret that we cannot tell whether blood flowed after separation of placenta, still the difficulty of the version will, it is believed, readily explain the omission to those familiar with these cases. I can recommend the combination of one of Mason's accurately fitted sponge tents with a tampon of cotton in these cases of rigid os with hemorrhage where delivery is imperative. Indeed, in my judgment, cotton is entirely the best material for a tampon.

CASE XVI.—*Placenta Prævia*.—During my pupillage I saw a patient die from placenta prævia, although treated by distinguished men abroad, and it is obvious that she was not properly treated, for a tampon of sponge was introduced in the vagina which did not fill it—nor indeed ought it ever to have been used—and the operation of version was several times postponed because the os uteri was not dilated, until finally the operation, when attempted, was performed without difficulty, as the cervix (in the operator's own words) was "as dilatable as wet paper."

CASE XVII.—*Placenta Prævia*.—In 1850, I had the gratification of seeing a case of placenta prævia in a primipara, then six months gone, where Dr. Simpson separated the placenta entirely with the uterine sound. I sat by this patient for nearly two hours afterwards, and satisfied myself that no blood escaped. At the end of this time the labor terminated naturally.

CASE XVIII.—*Placenta Prævia*.—A very interesting case of placenta prævia occurred in the Hôtel Dieu under Nélaton during my attendance there, in which Nélaton delivered with forceps, and then transfused the patient successfully; my friend Dufour, then Cazenave's interne, furnishing the blood. He was obliged, however, to submit to a second bleeding, as the first supply was lost by the agitation of an assistant. The second supply was received directly in a syringe previously warmed. The patient was resuscitated by the transfusion, and died from metro-peritonitis.

Last summer I heard a husband refuse to furnish the necessary blood for the transfusion of his young wife, then dying in her first labor from post-partum hemorrhage, and bidding him the most affectionate farewell with her last breath.

CASE XIX.—*Placenta Prævia*.—M. T., aged 32, first pregnancy. Head presentation—portion of placenta within reach—hemorrhage. In this case I was called in consultation and terminated the labor by version on the 27th of June, 1852, after a labor of thirty hours' duration. Male child; still-born. Mother did well.

CASE XX.—*Placenta Prævia*.—Cath. M'Nevens, aged 27, fourth pregnancy, in labor nine hours. I was called on the 28th of April, 1852, by some of Dr. Aylette's students, on account of the hemorrhage and recognition of the stringy placenta within the cervix. As the pains were good, os dilatable, and head advancing, I recommended ergot in the conviction that the advancing head would act as a tampon. A living female child was delivered without any operation, and the mother did well.

CASE XXI.—*Poisonous effects of an infusion of Stramonium leaves injected in the rectum—Recovery—Subsequent conception*.

Mrs. —, aged 22, of slender build, but as healthy as most of our young New York ladies, had however menstruated rather profusely for some years before marriage. Subsequently to that event she consulted me for great pain in the back, irritable bladder, with difficulty in passing water, and trouble in defecation as though from some obstacle. On vaginal examination I found a uterus of normal size quite retroverted, and presenting a slight patch of ulceration around the os. A full-sized sound could be

readily introduced to the fundus, and restoration of position effected, and with some little attention in the way of subsequent reposition, and a few applications of the nitrate of silver, these symptoms (which had been of recent date) disappeared. Irritability of bladder and neuralgic pains would occasionally demand relief on subsequent occasions, but the displacement was never reproduced. Benzoic acid internally, and an occasional vaginal suppository, were generally successful. Nineteen months of married life had thus passed with but one ungratified wish—viz. for children. In May, 1860, I was consulted one Sunday for constipation and some wandering pelvic pains, and ordered some laxative pills, and some packages, containing in all $\frac{3}{4}$ iv. of Stramonium leaves. She was distinctly informed that the pills were laxative in character, and that the leaves were to be used as follows—viz. half a pint of boiling water to be poured on the contents of one package, and the liquid to be poured off in ten minutes time, when it should be used as a vaginal injection. She took the pills, and then proposed to her husband to put the contents of all the packages in a pint of boiling water, and use the tea as an enema. He remonstrated with her, and argued that the pills were avowedly given to move the bowels, and that there would be no use in dividing the leaves in a number of packages, if I had desired that they should all be used at once. These arguments not prevailing, he went to the drug store, and inquired whether this tea could be used in the rectum, or in the vagina alone? The apothecary referred him to me, but said that the remedy might be used in the rectum and in the vagina. Still the husband positively forbade his wife to use more than one quarter of the tea which had already been prepared from the whole four ounces. This amount she then injected in the bowel, and almost instantly came staggering wildly into her bedroom, and fell upon the bed, unconscious, and presenting every symptom of complete poisoning by stramonium.

I was summoned hastily, and found her perfectly under its influence—countenance flushed; eyes staring stupidly; pupils widely dilated; muttering incoherently, and unable to reply to questions; restless, uneasy, tossing, throwing herself suddenly forward; striving to get out of bed; grasping with her hands vaguely, as though under the influence of spectral illusions; picking at the bed clothes; pulse rapid and feeble; expectorating occasionally a thick mucus, without regard to where it fell. When allowed to get up, she staggered vaguely in a purposeless manner, and appeared quite blind. I gave a large enema of warm water, to wash away any of the poisonous injection which might have been retained. There seemed to me no further indication for treatment, beyond the necessity for supporting strength, and the question as to the advisability of the *endemic injection of morphine*, on the principle of its use in cases of belladonna-poisoning. Not being willing to assume this responsibility, I summoned Dr. Van Buren, and we then sent for Dr. Macready for further advice on the subject. As some time had elapsed before the arrival of Dr. Macready, my patient had begun to show some improvement and a tendency to sleep—from which, however, she would every little while waken suddenly, and present all the symptoms described, which strikingly resembled those which I have previously reported in the New York Journal of Medicine, in the case of a boy poisoned by stramonium seeds. The consultation decided against the employment of opium, and Mrs. — was left to the effects of time. She remained in a somewhat similar state all the next day, although able to speak; but on the following morning she recognised her friends. The pupils remained dilated for a week, after which time no ill effects were experienced.

It is an interesting fact that the next menstrual period occurred shortly afterwards at the regular time, and was followed by impregnation. Whether post or propter hoc I am unable to say.

The infusion of stramonium leaves is a favorite remedy of mine for pelvic irritations in women, and I have used it in a great many cases of uterine disorders, both acute and

chronic. It is, of course, but palliative in the latter, but has been productive of much comfort to many of my patients. On the very day in which it was prescribed in the case just related, I had ordered it for a case of chronic metritis with tendency to retroversion, and no ill effects have ever followed its injection in the vagina in my experience. I generally order an infusion of 3 ij. at a time.

CASE XXII.—*Post-mortem Cesarean Section—Child found dead—Interesting condition of Kidneys.*

I was called suddenly to an out-patient of the Lying-in-Asylum, a primipara, with puerperal convulsions. She had died before my arrival, and the physicians had just left. The husband consented to allow me to open the abdomen, and I made the Cesarean section in the mesian line from below the umbilicus. The operation presented no special observation of interest beyond those which were to have been anticipated—child dead, first cranial position—but the kidneys differed greatly from each other. They were equal in size, but one appeared quite healthy, and the other the subject of advanced Bright's disease. Several gentlemen had an opportunity of seeing them, and I gave one to Dr. Gouley, and the other to the late Dr. Chas. E. Isaacs; and their microscopic examinations fully confirmed the opinions previously formed. The relation of such a pathological condition to cases of Bright's disease, where the urine might present appearances inconsistent with the duration of the patient's life and condition of health, forms an interesting subject for reflection, and is one of the considerations which complicate the difficulties of our prognosis in the diseases of the kidney grouped under the name of Bright's disease.

I cannot write the name of Dr. Isaacs, without offering my tribute to the warmth of his friendship, the unselfishness of his character, the purity of his nature, and the guilelessness of his heart. His great attainments, and the brilliancy of his original investigations, are the least among his claims to the recollection of those who could appreciate the gentle, unaffected simplicity of a life clouded by many trials, and who can feel that he loved them.

EIGHT CALCULI

REMOVED FROM THE URETHRA OF A BOY FIVE YEARS OLD.

By JOHN W. HUNT, M.D.,

LATE HOUSE SURGEON TO BELLEVUE HOSPITAL.

GEO. B., æt. five years, was brought to me March 12th, 1860, suffering from retention of urine. About nine months ago he first began to have difficulty in passing his water, which would sometimes escape by drops only. He would complain at times of pain in the region of his bladder, and in the end of his penis, which symptoms had previously passed away in a little time without aid. The usual symptoms of a distended bladder were present, and I introduced, without difficulty, a No. 5 silver catheter, and about a pint of dark-colored urine was evacuated, giving the patient perfect relief. At seven o'clock on the morning of March 14th I was sent for to see the boy, and found him again suffering from retention of urine. After I had relieved him on the 12th, he had experienced no trouble in voiding his urine till the afternoon of the 13th, since which time he had passed none. Suspecting calculi, I introduced the same catheter that I had previously used. Quite a large quantity of water was evacuated. On removing the instrument, I thought I felt it grate against a hard body, but was unable to get that sensation a second time. The penis was slightly swollen, and his bowels were confined. A poultice was applied to the genitals and perineum, and Ol. Ricini ʒss. given. I saw him again in the evening, and found that he had passed no water since I left him in the morning. The bladder was considerably distended, the penis a little more swollen than in the morning, and he complained of pain when it was handled.

On passing my fingers from the root of the penis, beneath the urethra, to the meatus, I felt a firm, hard, and tender tumor, which occupied the fossa navicularis. I attempted to pass a No. 4 gum-elastic catheter, but at less than half an inch from the meatus it encountered an obstruction, which seemed to be hard and unyielding. Having no surgical instruments with me, I asked the mother of the patient to give me a common table fork; then grasping the penis just behind the tumor in the urethra, and pressing gently forwards, I introduced one of the prongs of the fork into the urethra, and with a little careful manipulation, succeeded in removing a calculus as large as a pea, and following it, two others of a similar size. The tumor had disappeared, and I introduced the catheter without further difficulty, and relieved the bladder.

The urine was strongly acid, and loaded with lithates. The calculi were of a pale brown color, surface smooth and somewhat polished, regularly laminated in structure, and were worn into irregular forms by rubbing against each other. They were slightly soluble in nitric and muriatic acids, and the color unchanged by them; readily decomposed in the flame of a spirit lamp, leaving a white efflorescence. *March 15th.*—I introduced a No. 3 steel sound, and could distinctly feel more calculi. Swelling of the penis somewhat subsided, and he was able to pass his water unassisted. A non-stimulating but nourishing diet was enjoined, together with exercise in the open air. Also the following: R. Infus. Buchu ʒ viii.; Tr. Hyoseyami ʒ i.; Liquor. Potassæ ʒ ss. A teaspoonful to be given once in six hours.

March 16th.—I found him again suffering from retention of urine; a hard body occupied the fossa navicularis, and only an entrance to the urethra could be gained, the catheter encountering an obstruction at the same point it had on a previous occasion. Again having no instruments with me, I had occasion to use the fork. I removed three more calculi in the same manner that I did before, after which the patient passed his water without aid. *March 24th.*—I removed another calculus from the urethra with a forceps; it was larger than the others, and was extracted with some difficulty. *March 27th.*—I removed another. *March 28th.*—He passed two calculi a little smaller than those previously removed. *April 10th.*—Patient much improved in appearance; has had no trouble since he passed the last two calculi; his skin has lost its sallow, cachectic appearance; appetite good. On introducing the sound, I discovered nothing abnormal. The mixture which he had been taking till the present was discontinued. I did not see the patient again till September, 1860, when he was looking healthy.

REPRODUCTION OF THE LEFT HALF OF THE LOWER MAXILLA.

By E. S. COOPER, A.M., M.D.,

PROFESSOR OF ANATOMY AND SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC, SAN FRANCISCO, CALIFORNIA.

CASE.—A little girl, seven years of age, having been attacked with bilious fever, the medical man in attendance administered largely of calomel, which produced a most severe and protracted pyalism, resulting in sloughing of the alveoli on both sides of the lower maxilla, as also that of part of the upper. The affection of the lower jaw continuing, necrosis of one half took place, including the condyloid and coronoid processes. Separation finally occurred near the symphysis, and when I was first called, some seven months after, nature was making an effort to throw it off. This was done by the gradual replacing of a hard substance having the external feel of bone, which, as it increased in size and hardness, had evidently slowly pressed the necroid portion of bone out so that at the time I saw the case first the anterior extremity of the detached bone was so raised as to keep the mouth quite wide open. The necrosed bone was quite movable, and on instituting motion, a considerable quantity

of purulent matter was discharged from the soft parts surrounding the bone.

In consequence of the elevated position of the anterior extremity of the dead bone separating the jaws, the patient had been unable to masticate her food for nearly three months. On attempting the removal of the detached bone not the least difficulty was encountered, nature having already almost accomplished the work. An incision about one inch long was made on the upper side, and the bone readily seized and extracted with the forceps. As soon as the dead bone was removed, the motion of the lower jaw was measurably restored, and on opening and closing the mouth quickly, the motion of the coronoid process under the zygomatic arch could be as distinctly felt as in the natural condition.

The reproduced bone (as it was evidently nothing else) was much larger than the natural bone, and on the under side very convex. She remained under my treatment for two months, during which time the reproduced bone constantly improved in its shape, which I afterwards ascertained continued until nearly all deformity was removed.

Reports of Hospitals.

BELLEVUE HOSPITAL.

SERVICE OF STEPHEN SMITH, M.D.

CASE OF SIMULATED HIP-JOINT DISEASE, SUCCESSFULLY TREATED BY APPLICATIONS TO THE OS UTERI; FRACTURE OF FEMUR TREATED BY STARCH APPARATUS, WITH EXTENSION; ABSCESS OF BRAIN FOLLOWING AN INJURY.

[Reported by RANDOLPH PAGE, M.D., House Surgeon.]

CASE 1.—*Simulated Hip-Joint Disease*.—Rose A., æt. 21 native of Ireland, single, of good habits, was admitted to Bellevue Hospital, Nov. 17, 1860. She stated, that for *eight years* she had hip-joint disease, and had been treated for that complaint by blisters, setons, etc. On careful examination, very serious doubts as to the existence of hip-disease were entertained, and being aware of the fact that sometimes *uterine affections* manifested themselves in that region, the patient was accordingly examined by the speculum, and excoriations were found around the os and cervix uteri. There was also some retroflexion, and a clear viscid discharge from the os. Applications were made of two drops of chromic acid, once every eight days, to the os uteri, for four weeks. After the second application, the patient began to get better, left her bed, and walked about. As the trouble about the os and cervix abated, the *hip-disease* diminished. At present the discharge has ceased for three weeks, the excoriations have healed over, and nothing but a little soreness in the inguinal region remains.

CASE 2.—*Fracture of Femur treated with Starch Apparatus and Extension*.—Fred. Arnold, æt. 16, German, was run over by a horse-car, Nov. 16, 1860, and had his left os femoris fractured about the juncture of the middle with the lower third. There also resulted a flesh wound on the back between the lower ribs and the crista ili. A good deal of swelling in the limb was present. Shortening to about two and a half inches. The night after admission, the limb was put on a pillow, lead and opium wash applied to the thigh, and an eight pound weight attached to his leg (using adhesive straps up to the knee). The next day, at the suggestion of Dr. S. Smith, the following applications were made, the thigh being still swelled and shortened. I. A layer of cotton batting to the thigh, bandaging the whole limb from the toes up. II. A thick pasteboard splint, shaped so as to fit accurately the entire thigh and nates of the left side; this, after immersion in hot water, was moulded to the limb and snugly enveloped with several roller bandages, well starched. After drying the whole, a segment of the cylinder was cut out on the front of the thigh, and the splint tightened with straps buckled on. Every precaution was taken to keep

the splint well adjusted. At this time, by means of forcible extension, the shortening was reduced to three-fourths of an inch. The weight was to be kept on until the next morning. The drying of the starch apparatus seemed to reduce the swelling considerably; and, by tightening the straps daily, it was found that in three days the enlargement had disappeared. From that time, daily, the boy was allowed to go around the ward on crutches, supporting the foot with a sling passed under it, and around the neck. After the third day, the weight was put on *every night* for four weeks. As the result of this treatment, the shortening was overcome, and the patient was discharged cured a few days ago.

CASE 3.—*Abscess of Brain*.—John Weston, æt. 51, admitted Nov. 2, 1860, with concussion of the brain, and a contused wound on the forehead just over the right superciliary ridge. He apparently recovered entirely from the concussion, but the wound became sloughy, and extended its ravages down to the os frontis, which it laid bare to the extent of a circle half an inch in diameter. His general condition was a good deal impaired, but no serious symptoms set in till Dec. 28, when he had general convulsions, attended by chills, fever, and symptoms of compression of the brain. Dec. 29.—Was trephined by Dr. Wm. H. Chureh, near the original seat of injury, with hopes of finding any deposition of matter that might exist, at or near this point, but without success. The post-mortem examination revealed an irregular oval abscess, two inches long by one in width, and containing about an ounce and a half of pus. It extended from a point on the right hemisphere, over the fissure of Sylvius, one and a half inches from the superior longitudinal fissure, and from the convexity of the hemisphere to a point three or four lines above and without the base of the anterior cornua of the lateral ventricle of the same side. No other abnormal appearances recognised.

American Medical Times.

SATURDAY, FEBRUARY 23, 1861.

A NEW QUESTION IN ETHICS.

ABOUT ten years ago the Faculty of a Medical College, in an interior town, were surprised by the receipt of a letter from a lady making application for admission as a medical student. The application was accompanied by testimonials of moral character, and proficiency in her studies, from a medical man of high standing. In their extremity the faculty determined to leave the question of her admission to the class, with the avowal that if one member dissented, the application of the lady student should be refused. A class meeting was held, and influenced by the novelty of the request, a unanimous approval was unhesitatingly given. Several days after, one of the professors, on entering the class-room, was accompanied by a short, thick-set young lady, with features expressive of decision, resolution, and energy, who took her seat upon the first tier, and without embarrassment began taking notes of the lecture. Time wore on, and though the first effects of the presence of the lady upon the class gradually passed away, still there was no time that her appearance a few minutes preceding the lecturer would not instantly hush to perfect silence the most noisy and uproarious gathering of medical students which we ever met. She attended the lectures with scrupulous punctuality, and in the public examina-

tions by the professors proved herself as capable as the best qualified students in attendance. She was absent but once during the term, and the occasion of this delinquency reflected creditably upon her character, and gained for her the admiration of the class. At the close of a lecture on the anatomy of the organs of generation, the professor, a great wag, who always interlarded this part of his course with vulgar anecdotes, read a letter from the lady-student, administering a stern rebuke for his refusal to allow her to be present at these lectures; expressing her determination to attend a complete course, and modestly offering to take the highest seat in the theatre, and remove her bonnet, if thereby he would feel less embarrassed. She completed her course, and graduated with honor. Subsequently she visited the hospitals of Europe, and everywhere won the respect of the medical men whose acquaintance she made. On her return to this country she commenced general practice, but failing of success she opened a private hospital, which is now in active operation, and is doing good service among our medical institutions.

Since that period considerable progress has been made in the education of female physicians; we have chartered medical schools for females exclusively, and also for males and females, while public opinion, of course, sets strongly in favor of the medical education of females. In the medical profession the question has already been mooted, Shall female physicians be recognised? This is a new question in medical ethics, which is not provided for in our national code. How shall it be decided? Shall we, or shall we not, recognise properly educated female physicians as practitioners in good and lawful standing? To recognise them is to encourage their study of medicine, and to commit ourselves to the removal of every obstacle to their education. It were well therefore if this question were definitively settled.

We have sketched above a representative example of a female physician. Let us consider the salient points which it presents; and incidentally indicate the principal sphere of usefulness which medically educated women are calculated to fill with advantage to themselves and the public.

1st. The allegation of the incompetency of woman cannot be sustained. This lady was one of the best qualified of the graduating class, many members of which have since risen to positions of usefulness and distinction. She persisted in her resolution to attend the entire course on anatomy, not from any morbid taste, but from a firm determination to make her medical education thorough and complete. She won the respect of the most learned of our profession abroad by her intelligent zeal in the pursuit of her professional studies. But we need not discuss the question of woman's intellectual abilities to cope with the most abstruse questions in the medical sciences, while the admirable works of Mesdames Boivin and Lachapelle are recognised as authorities.

2d. Nor could it be alleged against her that she sought to pursue any irregular course of medicine. On the contrary, she was in the highest sense orthodox; and it cannot be proved that female physicians will be more prone to quackery than the opposite sex, provided the same educational advantages are accorded to them.

3d. This lady physician engaged in general practice, and though she had the sympathies of a large circle of wealthy and influential friends, as well as physicians, she failed of

patronage, and hence of success. She was found unable to meet the exigencies of the every-day duties of her profession, as every one practically familiar with the exacting nature of those duties would have foreseen. The storm, the cold, the night, the distance, were barriers which she could not overcome without assuming the habits, dress, and manners of the opposite sex. And often the disease which she encountered was of such a nature as to compel her either to unsex herself in regard to her instinctive habit of reticence and modesty, or preserve her feminine sensibilities by neglecting her professional duty.

4th. Subsequently she became the medical head of a private charity for the treatment of sick women, in which capacity her medical education is admirably adapted to develop and give efficiency to her natural tastes and her instincts, and thus render her life one of eminent usefulness.

THE WEEK.

THE *Medical Times and Gazette* of January 7, contains a communication from Dr. W. C. Hood, of Bethlehem Hospital, denying in general terms the statements of our London correspondent, in a letter published in our paper of December 1; and the editor of that journal adds that he has visited the Hospital and found the arrangements all that could be desired. Dr. Hood's denial is specific only with respect to the remark upon coroner's inquests, the greater part of his letter being directed to the presumed sources of our correspondent's information. This is a matter about which we do not concern ourselves; but it is curiously significant that the evidence of witnesses who are deemed competent to testify before a coroner's jury is ruled out of court in questions relating to the internal economy of the hospital. We presume that our correspondent gathered his information from sources both within and without the hospital, as indeed is implied in his letter; it is probable he is at least as good a judge of evidence as a London jurymen; and we believe his account to be substantially true. Indeed, he reiterates his charges in a letter which we have just received, at the same time admitting that in so many details he may possibly have made an occasional mistake. This letter we do not publish, as we are not disposed to make our columns the arena of a personal controversy. If the more objectionable features are not in active operation, as we are bound to infer from the evidence which satisfied our esteemed contemporary, it is due more to the humane administration of Dr. Hood, than to the natural working of the system. Neither in this country nor in England have we yet perfected the details of the management of insane asylums.

THE annual report of the North Western Dispensary for 1860, contains an earnest appeal in behalf of that charity, by Dr. MORTIMER G. PORTER, one of the attending surgeons to the institution. The object of this appeal is to raise a fund for the purpose of building, the necessity of which is set forth in graphic language by the writer. It appears that since its organization in 1852, the officers have rented small and inconvenient apartments on the second floor of an old tenement house, so poorly ventilated that "when most crowded, the odors of infected respiration, the exhalations from persons and clothing, from diseased surfaces, from dressings of wounds, ulcers, &c., which fill the air, render it almost pestilential." The rooms are not even

supplied with water, "one of the most important requisites in all the departments of dispensary practice." Dr. PORTER thus alludes to the embarrassments under which the physicians and patients labor in this dispensary:—

Our provisions for the private examination of patients, and for the separation of the sexes, are insufficient. In one of our waiting rooms, (which, from necessity, is also used as a prescribing room) where congregate men, women, and children, a cloth screen is our only means of separating those in waiting from the physician and the patient whose case is under investigation. Under such circumstances, there is no opportunity for privacy, or for making and receiving those delicate communications so often necessary to a perfect understanding between patient and physician. Those outside the screen are necessarily parties to each interview behind it; and the physician must be skilled indeed, who, with such surroundings, can conduct his inquiries so as never to offend the delicacy or sense of propriety of his patients. The writer is cognizant of more than one instance, proving that sensitive females (who have seen better days, and whose poverty is their misfortune rather than their fault) have been deterred from making a second application for Dispensary aid, by the annoyances they were thus subjected to at the first visit, preferring rather to go unrelieved, and to endure their sufferings in silence.

It is painful to reflect that such a work of beneficence as this, dispensing untold benefits to the poor and the suffering, should be compelled to *seek* aid in a city renowned for its public charities, and its improvident expenditure of money. We are gratified to learn that an appropriation to this Dispensary of \$10,000 is introduced into the tax levy this year, which we trust will be allowed to remain. The private subscriptions amount to \$4,325.

It is seldom that we hear the complaint that conservative surgery is too much regarded. On the contrary, among the older surgeons, the regret is universally expressed, that operative surgery is so much relied on for the relief of surgical affections. And this strong tendency to conservatism is, we believe, the result of wisdom and experience, and the dictate of sound judgment. When a new operation is announced, it is remarkable what a number of cases suddenly appear in our hospitals *perfectly* adapted to it, and what marvellously successful results follow the first trials. But it is painful to reflect how these first hopes are too often found to be fallacious; not, however, until human suffering has been largely increased, and human life, perhaps, sacrificed. It is truly refreshing to learn that there is a place where conservative surgery is carried to such an extent as to excite alarm, though we deprecate either extreme. Prof. COOPER, one of the most accomplished surgeons on the Pacific Coast, says (*San Francisco Medical Press*):

"There is, probably, no other city on the globe where conservative surgery is so universally practised, as by the surgeons of San Francisco. This practice obtains to so great an extent, among a certain class of practitioners, that the amputation of limbs is absolvescent, and there can be no denying the fact, that this department of practical surgery has received a decided advance in this city."

THE New York County Medical Society held a special meeting on Friday, the 15th inst., with reference to the decease of Dr. JOHN W. FRANCIS. Appropriate resolutions were presented by a committee, consisting of Drs. Isaac Wood, Joel Foster, G. S. Bedford, E. L. Beadle, and S. T. Hubbard. The President was directed to appoint some member to pronounce an Eulogy.

WE regret to announce the death of Mr. CHARLES W. POHLMAN, for many years the popular Janitor in the University Medical College. Mr. POHLMAN died on the 15th of February, of pneumonia. The funeral services took place in the College building, and were attended by the Faculty, the students, and large numbers of friends. The interment took place in Greenwood.

A pleasant *réunion* of the Fellows of the Academy of Medicine occurred on Thursday evening, February 14, at the residence of the PRESIDENT, Dr. JAMES ANDERSON. Invitations to the number of about three hundred were issued to the members of the Academy, and of the Widows' and Orphans' Association, and upwards of two hundred guests were in attendance. The evening passed pleasantly in familiar, social intercourse, and was closed with an elegant entertainment, followed by volunteer addresses by Prof. BEDFORD, Rev. Dr. BETHUNE, Prof. GILMAN, and Dr. GRISCOM. We understand that it is the design of the PRESIDENT to give monthly receptions to these Societies. This is an important step, and one that will tend materially to strengthen the bonds which unite the members to each other and to their Societies. We have far too few of these social gatherings.

WE have received the following reports from several New England towns in which registration is accurately maintained. They will interest those engaged in sanitary reforms. The first may well be called

A SPECIMEN TOWNSHIP.—The following is the report of deaths in Hinesburgh, Vt., in 1860:—7 under 3 years of age; 1 at 10 do.; 1 at 12 do.; 1 at 23 do.; 1 at 39 do.; 1 at 53 do.; 1 at 63 do.; 6 between 70 and 80 do.; 1 at 85 do.; 1 at 96 do. Whole number, 21. A proportion of 12.35 to 1000 of the population. The average age is a small fraction less than 40. One-third of the people live to be three-score-years-and-ten.

The second is a fair illustration of the healthfulness of a small New England city:—

VITAL STATISTICS OF BRIDGEPORT FOR 1860.—In a population of 13,000, there were, *births*, 537; *deaths*, 207. Of the latter, cholera infantum, 18; pneumonia, 17; consumption, 15; convulsions, 12; scarlatina, 7; fever, typhoid, 7; and from unknown causes, 43. Ratio of mortality, 1 in 63.

The third exhibits the salutary effects of a well managed Health Department in a populous town:—

HEALTH OF PROVIDENCE, R. I., IN 1860.—DR. EDWIN M. SNOW, the distinguished City Registrar of Providence, says:—I have counted the population of Providence from the original returns of the census of 1860, and am confident that the following comparisons are correct: Total population 50,677, of whom 49,103 are whites, and 1,574 are colored, and 1,064 are in public institutions. The deaths in 1860 were as follows:—Total population, one death in 50.6; white population, one death in 52.5; colored population, one death in 23.8; male population, one death in 50.4; female population, one death in 50.7; in public institutions, one death in 22.1; in first ward, one death in 50.4; in second ward, one death in 59.8; in third ward, one death in 52.7; in fourth ward, one death in 73.4; in fifth ward, one death in 50.9; in sixth ward, one death in 48.7; in seventh ward, one death in 52.4; 70 years of age and over, one death in 8.5; dwelling houses, one death in 6.6; families, one death in 10.2. The returns of births and marriages are not yet completed; but the number will probably be about 1700 births and 650 marriages.

The biographical sketch of Dr. Francis will appear next week.

Reviews.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.
INSTITUTED 1847. Vol. XIII. Philadelphia, 1860, pp.
927.

It is to be regretted that this volume has again been delayed in its publication far beyond its proper period. The interest which the Profession attach to such a work is greatly enhanced by its prompt issue after the annual meeting. Had this volume been published within three months of the last annual meeting of the Association, it would have been of twofold value to nine-tenths of the members. We are not aware of the cause of the delay, but presume it was due to the difficulty of obtaining the manuscript papers from the several authors. If such is the fact, we think it time that the publishing Committee were relieved of the annoyance which this unnecessary and wholly unjustifiable negligence of authors creates. There should be a fixed period within which all manuscripts are to be forwarded to the Committee, and none should be received after the appointed date. If this rule were strictly followed, we believe the number of annual subscribers would be largely increased; for the period of issuing the Transactions would then be fixed with as much certainty as any serial publication, and the very existence of the latter is well known to depend upon the promptness of their issue.

It is gratifying to learn that this great central Association is not only free from debt, but has a surplus fund, thus standing forth as a model, in its pecuniary management, to minor bodies. The Treasurer complains that so few become annual subscribers to the Transactions; of two thousand members, but about two hundred are annual subscribers. Let us add, that the member who fails to supply himself with the current volume of these Transactions, allows an opportunity for acquiring an invaluable addition to his library to pass unimproved, which may never recur. We could wish, for the honor of American medicine, that every physician in our country was in possession of a complete set of this series.

In his annual address the President, Dr. HENRY MILLER, discusses principally the subject of medical education. The present low standard of professional qualification is attributed, first, to the profession, and secondly to the schools. The profession is culpable in admitting to pupilage uneducated and incompetent students, while the medical colleges are too lax in their examinations. The truth of these propositions no one will deny, for they embrace all the sources of evil in our system of medical education. But different persons will attach unequal importance to the one or the other class. Prof. Miller is inclined to attribute to the profession a large share of the responsibility of reform, as it is in their power to thoroughly sift the applicants for admission to the ranks of the profession, and allow none to enter the lists but the qualified and competent. While we do not wish to shield the profession from a due share of responsibility in the admission of unqualified students to pupilage, we see no justice whatever in the implied allegation, that the schools are under any obligations to graduate such students. On the contrary, we believe the main responsibility of admitting unqualified men to the ranks of the profession rests with the schools themselves. If they are in earnest in the work of educational reform, and if they have found the chief obstacle to be the application of students deficient in their preparatory education, why do they not establish a standard of preliminary education, as do our literary institutions, and examine each applicant before he is allowed to attend lectures, and compel him to turn back and seek some more congenial employment, if he has not attained to the required standard? The *lay* members are but recruiting officers of the army of physicians; the colleges are the ordeals which test the fitness and

capacity of the volunteers. Upon the latter, therefore, rests the responsibility for the low standard of education which exists, and the admission of utterly unqualified persons to the ranks of the profession.

This is the first volume which has been issued since the division of the Association into sections. The Transactions are, accordingly, divided by the sections, the papers that were read in each being grouped under the individual section. These sections are as follow: Medical Topography, Epidemic Diseases, Surgery, Practical Medicine and Obstetrics. The report of the standing committees closes the volume.

The reports in the first section are two in number; the first being on the *Topography and Epidemics of New York*, by JOSEPH M. SMITH, M.D.; and the second, on the *Epidemics and Topography of North Carolina*, by JAMES H. DICKSON, M.D. The report of Prof. Smith occupies nearly 200 pages, and is a production worthy of the pen of one who has long been recognised as our ablest writer on epidemic diseases. As this report has been issued in a separate form, we shall make it the subject of a future notice. The report of Dr. Dickson, though less elaborate, is replete with interest to the student of epidemics. After giving a brief general survey of the topography of the State, he proceeds to discuss individual diseases. The eastern portion of the State, being low and marshy, has long been the special seat of bilious remittent fever. Latterly, however, this fever has extended to the higher regions. Typhoid fever is the special fever of the interior, and has a wide diffusion; scarlatina is now regarded as a regular epidemic; cerebro-spinal meningitis has appeared twice, in 1856-57, and was very fatal; dysentery prevails throughout the State, but is of a milder type than formerly; cholera infantum is a confirmed endemic, and often prevails epidemically in the spring and fall; stomatitis has once assumed the character of an epidemic; jaundice has been epidemic frequently, and is believed to be due to the same morbid influences as the prevailing fevers. Dr. Dickson devotes the concluding portion of his report to pneumonia, which he states is "the great endemic of the winter and spring seasons," in all parts of the State, assuming every type described by writers. This report is a valuable addition to that series of reports on the epidemics of the different States, which will render these Transactions a storehouse of materials for some future history of the epidemics of the United States.

The Surgical Section furnishes three reports. The first is on the *Various Surgical Operations for the Relief of Defective Vision*, by MONTROSE A. PAXEN, M.D., of St. Louis, Mo. This is an essay of about sixty pages, reviewing the various operations upon the appendages of the eye. The subjects are examined historically with painstaking research, and the report presents an interesting view of this branch of ophthalmic surgery. The second report is *On the Improvements in the Arts and Sciences of Surgery in the last fifty years*, by JOSEPH N. McDOWELL, M.D., of St. Louis, Mo. Our first inquiry, on examining this effusion, was to learn through what channel it found its way into the volume. On referring to the proceedings of the Section we find the following entry, which, as it presents not only an epitome of the report, but a fair illustration of its style, we shall extract: "He first discussed the use of anæsthetics, and expressed himself as being opposed to them except in some rare instances. Spoke of several operations on the head and face, which had been introduced in surgery, during the above period. Did not think the removal of the whole lower jaw was desirable. Advocated the extirpation of the parotid gland—had performed the operation eleven times. Discouraged operations on the lower part of the neck, especially on the deep-seated organs; speaks of them as being dangerous and generally fatal. Gave a historical sketch of the operations in ovariectomy, and claimed the honor of the first operation for his brother, James McDowell, in 1809. He then proceeded to discuss the subject of lithotomy, and exhibited to the Section specimens of his lithotome; which, from having

movable blades, could be used as a uni- or bilateral sector." The report was then referred to the Committee on Publication, to be published with the Transactions. The publication of a paper so destitute of merit, or rather so deserving of unqualified condemnation, upon the recommendation of the Section on Surgery, is not only a reflection upon the intelligence and discretion of that body, but proves conclusively that the Committee on Publication should have power to reject papers referred to them for publication, if, on mature deliberation, they deem them unworthy of that honor. As to the report itself, it were more creditable to the volume that the space it occupies were blank paper. We should give it too much notice by even pointing out its absurdities. The last report in this division is *On Morbus Coxarius*, by LEWIS A. SAYRE, M.D., of New York. This most practical paper has been issued in separate form, and we shall reserve a more detailed examination of its contents for another occasion. We may allude in passing to one point which has given rise to much needless controversy. It has been alleged that the author did not give due credit to Dr. Davis for his invention of an instrument for treating hip-joint disease by extension and counter-extension. This assertion is now disproved, as ample testimony is here presented of the intention of Dr. Sayre to give Dr. Davis full credit for his invention. This report will be read with great interest by every practical surgeon, as it is destined to effect a complete change in the treatment of morbus coxarius. In passing, we can but allude to the wretchedly-executed wood cuts which deface this paper, and which are a disgrace to American art. While the Association has a full treasury, such defects in the volume are inexcusable. This volume should be a model of excellence; a national representative work, not only in the literary and scientific character of its papers, but in its typographical and mechanical execution.

(To be continued.)

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

FIFTY-FIFTH ANNUAL MEETING.

AFTERNOON, TUESDAY, FEB. 5, 1861. (CONTINUED.)

(Continued from page 119.)

SIMPLE EXTENSION IN THE FRACTURES OF LONG BONES.

DR. JOHN SWINBURNE read an elaborate paper upon the subject of simple extension in the treatment of all fractures of the long bones. He ignored entirely the use of splints, maintaining that when a limb was extended to its normal length, the muscles alone were sufficient to keep the fractured ends in apposition. In a case of fractured thigh, for instance, all the appliances necessary were: 1. A counter-extending perineal belt fastened to the head of the bed; 2. An extending apparatus at the foot, formed of strips of adhesive plaster on either side of the leg, making a loop at the sole from which a cord reached to the foot of the bed. He had treated over forty cases of this fracture by that method with perfect success. The same principle was carried out in the treatment of the other long bones, but as the paper will be published in full, it is unnecessary at present to go into any further detail.

DR. JAMES R. WOOD expressed himself very much interested by the paper, and gratified with the results of the treatment therein laid down. He remarked that the treatment of fractures by extension had been practised perhaps twenty years ago, and he had tried it himself in New York. The principle of extension and counter-extension, remarked he, is the only one by which fractures can be treated. I fear, however, that the Doctor in his zeal has not remembered

that the muscles leading from one bone to the other are not straight, as illustrated by the models exhibited by him. They are inserted at different angles, hence the force they exert must be in a corresponding direction, and the only safe way to remedy the deformity which is thus induced is by lateral appliances in the shape of splints, with extension and counter-extension. I have tried the simple extension, and have succeeded, and failed. It has also been tried by one of my colleagues in Bellevue Hospital with the same results. It will not answer in refractory patients. When you are to continue the extension for any length of time, excoriation and sloughing of the perineum are very apt to result. I have had the same thing happen to myself. Again, if a muscle be irritated it will contract; hence the necessity of keeping it quiet and applying evaporative lotions until the inflammatory swelling shall have subsided, before the splints are applied, with extension and counter-extension. I do not think that the Dr., when he shall have practised this method for some few years longer, will feel safe to leave his patient without some such lateral support. A few years ago, while in Kentucky, I was invited by the illustrious Dr. Dudley to see some of his patients who were being treated for fractured thighs by bandaging alone, and he remarked to me that he had no deformity whatever; that he was able to control the muscles by those means alone. Now the true principle upon which all fractures should be treated consists in extension and counter-extension, with lateral support by means of splints. I maintain that a combination of all these means is requisite. I do not doubt that good results are obtained by simple extension and counter-extension, for I have met with such success myself. In all those cases, however, my house surgeon kept a constant watch over them. Notwithstanding any good results that may attend this course of treatment, I contend that it is a dangerous practice to teach our students. We all know that, with the best appliances, the majority of the suits for malpractice are due to unfortunate results in the treatment of fractures. Dr. W. reviewed in detail the models and splints exhibited by Dr. Swinburne, and also referred to the different actions of the different muscles of the long bones.

DR. SWINBURNE stated that it was only requisite to draw out the limb to its normal extent, when the natural positions and relations would be restored, and all source of irritation would be removed. The amount of extension must be in all cases regulated by the feelings of the patient.

DR. ARMSBY asked Dr. Wood if he had ever treated fractures of the os brachii by extension.

DR. WOOD replied that he never had. The weight of the arm, continued he, is sufficient for all purposes of extension. It is too much frequently, and this is one reason why we so often get ununited fractures of this bone. Statistics will show that this bone is more frequently the subject of non-union than any other bone in the body; and in order to guard against the possibility of the occurrence of such an accident, we are frequently compelled to press the end of the bones together by means of a bandage passed around the shoulder and under the elbows. In regard to the action of the muscles they are as different as their positions, and moreover, the abductor muscles—the most powerful in the body—tend directly to the production of lateral deformity unless they have the requisite amount of support by lateral appliances in the shape of splints. In all of Dr. Swinburne's cases, with the exception of the thigh, I observe that appliances are used which serve the purposes of splints. Dr. Wood then described the straight apparatus for fracture of the thigh, as used in the Hospitals of New York, and maintained that it was the one based upon proper principles. First, Two strips of adhesive plaster were placed on either side of the leg, extending from the proximal extremity of the distal fragment and looped under the foot over a small foot-piece for extension; this is retained by bandage. Second, Were splints of coaptation around the thigh. Third, The long outside splint, the upper end of which was received in the pocket of a body

belt, and to this body belt was attached the counter-extending perineal pad. To the lower end of this long splint, and along its inside, was fastened a block through which a screw played, to the upper end of this screw was attached the foot-piece by a strong cord; lastly, the short internal splint, extending from the groin to the internal malleolus, was applied.

DR. SWINBURNE remarked, in regard to the different actions of the several muscles of the thigh, that when the limb was placed upon the bed, and extension made, all the muscles were so placed that they acted directly on the long axis of the bone. If any lateral influence was claimed for the adductors, the direction of their forces was certainly altered by the position and action of the perineal pad. In reference to the appliances made use of, Dr. S. stated that they were only necessary for the purpose of making points for extension and counter-extension.

DR. BATCHELDER alluded to the importance of crowding the two fractured ends of the os brachii together, in order that non-union might be prevented. He also referred to a case of fractured femur, which by extension was made from three-fourths of an inch to an inch longer than the sound limb, showing that the patient's feelings were not always to be relied upon in reference to the amount of extension to be applied.

DR. SWINBURNE remarked, that a proper comparison of the two limbs by measurement would have prevented such an occurrence.

DR. BISSELL referred to a case of fracture of the humerus, treated on the principle of extension, by means of weights applied to the elbow, and which resulted in non-union and separation of the fragments, to the extent of three-fourths of an inch.

DR. SWINBURNE stated that the non-union was in consequence of the want of a proper regulation of the extension.

DR. BLY, in connexion with the extensibility of muscular tissue, referred to a series of experiments upon the leg of a living sheep. Extension was made by means of weights. The muscles could be drawn down about half an inch beyond their natural length, but any further attempts at extension were attended with a rupture of the muscular tissue.

On motion of Dr. VANDERPOEL the meeting then adjourned until 10 A. M. on Wednesday morning.

MORNING SESSION, WEDNESDAY, FEB. 6TH.

The President, Dr. JONES, in the chair. The minutes of the previous meeting were read and approved.

The Secretary, Dr. WILLARD, presented the following:—

Whereas, The Medical Staff of the Asylums at Utica, Auburn, Bloomingdale, Canandaigua, and New York city, and the 'sylum at Binghamton about to be established, have no representation in the Society, therefore,

Resolved, That a Committee shall be appointed to consider the expediency of the Statute that shall entitle a delegate from each of these institutions.

Adopted.

A Committee was appointed, consisting of Drs. Willard, Quackenbush, and Vanderpoel.

A communication was received from the County Medical Society of Chenango, and also from the Medical Society of Herkimer County.

The Committee on Credentials made their report, and asked for the sense of the Society, whether they should accept the credentials when they had been received from delegates previously elected, as the New York Delegation had been voted the power to fill their own vacancies.

On motion of Dr. BISSELL, after several amendments, it was voted to admit the several delegates aforesaid to membership at this meeting.

On motion of Dr. SPRAGUE, the sense of the Society was unanimously expressed, that no such power can be conceded to delegates by any county medical society, the statute of the State defining how and for what purpose delegates should be elected and vacancies filled.

DR. ALDEN MARCH read a paper on Compound Commi-

nuted and Complicated Fracture of the Upper End of the Tibia, in which a very interesting case of that injury was detailed.

DR. JOHN G. ADAMS followed, with a paper on the Statistics of Suicides in the City of New York, as regards nativity, age, sex, color, condition, causes, mode of death, and the month in which they occurred, for the years 1859 and 1860.

DR. STAATS stated, that out of 500 cases treated by him in the Albany Penitentiary, where the blacks amounted to about seven per cent., he had never seen among them a case of delirium tremens, or suicide.

A communication was received from Dr. ARMSBY, inviting the members of the Society to his house that evening, immediately after the delivery of the President's annual address.

DR. J. McNULTY read a paper on Tetanic Diathesis, in which were set forth the views published by him in a previous number of the MEDICAL TIMES.

The Committee on the President's Address reported unfavorably in reference to the proposed division of the Society into Medical and Surgical sections.

DR. HUTCHINSON read a paper on Exsection of Portions of the Eighth, Ninth, and Tenth Dorsal Vertebrae, and also presented a communication from the Kings County Society.

The Secretary presented communications entitled as follows:

Two Pair of Twins within One Year and Five Days, by Dr. Barrows; Suspected Poisoning, by J. G. Orton; Bleeding in Cerebral Disease, by S. O. Vanderpoel; Rupture of Uterus, with an Account of Three Cases, by G. J. Fisher; Diphtheria, by Ferris Jacobs; History of the Madison Co. Medical Society, by A. L. Sanders; Diphtheria, by U. Potter; Rupture of the Womb, complicated with Strangulated Umbilical Hernia in a State of Gangrene, by C. V. Barnett; Memoir of Dr. Caspar Van Wie Burton, by S. D. Willard.

DR. J. M. MIXOR, the Chairman of the Committee for the Purpose of securing the Proper Execution of the U. S. Drug Law, asked for a committee of co-operation from the State Medical Society.

DR. E. R. SQUIBB next offered the following, which was adopted:

Whereas, All the incorporated medical and pharmaceutical bodies of the collective district of the port of New York have, through a joint committee, proposed to take some decided action in order, if possible, to secure the proper execution, in the incoming federal administration, of the U. S. law to prevent the importation of adulterated and spurious drugs and medicines; And whereas, this joint committee has, through its chairman, Dr. James M. Minor, acting as a sub-committee, requested the co-operation of this Society. Therefore,

Resolved, That this Society fully recognises the importance and propriety of this action, and cordially responds to the movement, and that the President is authorized to appoint a committee of three members, to be associated in the above-mentioned joint committee, to represent the bodies therein, with power to use the name and authority of the Society in furtherance of any measures that may be devised in the joint committee to effect the important object of its laws.

This committee consists of Drs. Frank H. Hamilton, John Watson and J. H. Griscom.

On motion of Dr. Sprague, the meeting adjourned until a quarter past three P. M.

AFTERNOON SESSION, WEDNESDAY, FEB. 6TH.

The minutes of the previous session were read and adopted.

DR. DOUGLAS BLY read a paper on Amputation of the Lower Extremities with reference to Artificial Substitutes for the same.

DR. ELISHA HARRIS next read the report of the Committee on the Hydrography of New York State.

The Committee conclude their Report with the following resolutions, which were severally adopted, after amending the *first*, so as to direct that "this committee be continued."

Resolved, 1st. That a Standing Committee, to consist of five members, be appointed by the Society, and designated The Committee upon Medical Topography and Climatology, whose duties shall be to collect and report

facts relating to those departments of medical information in this State, and communicate annually to this Society.

Resolved, 2d. That this Society recommend to the Legislature now assembled, that suitable measures be taken by State authority, to provide a comprehensive and effectual system of inquiry and sanitary advice and control, for the promotion of the public health.

Resolved, 3d. That this Society hereby directs that if this subject is not definitely acted upon by the present Legislature, it shall be the duty of the Committee on Medical Topography and Climatology, to cause to be prepared a suitable outline of points that should be included in such a Sanitary Code, as would provide for the general interests of the public salubrity in the State, and to submit the same to this Society at its next annual meeting.

This Committee consisted of Drs. Harris, Scymour, Orton, Bradford, and Hunter.

Dr. E. H. PARKER, the Vice-President, made some remarks upon the extensive use of opium by the community as a luxury, and the injurious effects resulting therefrom, and concluded a very interesting detail of facts by offering the following:

Whereas, it is unfortunately true that opium, and the different preparations made from it, as laudanum, morphia, etc., are used by many people in excess, and much misery results from it, not only to the person so using it, but to their friends, therefore, as the opinion of this Society, it is

Resolved, That opium in itself, and all its salts and preparations, should never be used except as a medicine, and that its use should be discontinued at the earliest moment consistent with the good of the patient.

Resolved, That the use of opium and its preparations, even of the simple pargoric, is always attended with danger, unless under the immediate and careful direction of a physician.

Resolved, That a committee of three be appointed by the chair, to consider the expediency of asking the Senate and Assembly of this State to enact a law forbidding, under sufficient penalty, the sale of opium or any of its salts, or any preparation of which it constitutes a large portion, by any druggist or physician, or any other person, to any one whose immediate friends (as of his or her family) have formally notified such druggist or physician, or other person, that it is used by him or her to excess; and that they forbid the sale.

Resolved, That this committee be instructed to report at the next meeting of this Society, and that if in their judgment it would seem wise so to do, they hereby are authorized to prepare a petition or draft of a law to that effect, and present it, in the name of this Society, to the Senate and Assembly of the State, early in the session of 1862.

The preamble and resolutions were adopted, and the following gentlemen appointed on the committee: Drs. Parker, Jenkins, and Hoff.

The meeting then adjourned, to meet at a quarter past seven, and listen to the President's Anniversary Address.

DR. DANIEL T. JONES'S ANNIVERSARY ADDRESS.

After referring to the fraternizing influences of Medical Associations, and the leading influence of the National Congress of Physicians, the President proceeded to notice some of the evidences of the devotion of medical men to the high interests of their calling, as witnessed in their private and in their public acts. Taking a prospective view of the future destiny of the heart of the Empire State and the great central valley eastward, he dwelt upon the important relations of physical and mental progress in our country. He remarked that he firmly believed "that this country, this portion of North America, is destined, in less than a single century, to become numerically, physically, and morally greater than Europe or the remainder of America." And he added, "Six thousand physicians and more are in this State intermingling with this population, holding the keys of this destiny."

In referring to the former prevalence of marsh fevers, he attributed more to the improved treatment of the sick than to improvements in the drainage, and gave an interesting detail of his thirty-five years' professional experience in one of the most malarious districts of the State. He stated the interesting fact that, at the early day of his settlement at Onondaga, he was in the habit of giving *ten grains of quinia, by weight, at a dose*; and that for the cure of *remittent*, as well as *intermittent* fever. He declared, "I am certain that persons living out of malarious districts know little of the virtues of quinia; and that man who fears to give, in a dangerous attack of congested bilious fever, *eighty or a hundred grains* during the apyrexial period, or in twelve or even six hours, is better employed in writing fiction than in teaching or practising medicine."

His picture of quacks and their patrons was happily and

justly drawn. Severe was the conclusion that the proportion of such defective minds in every community, civilized or barbarian, is about the same. Learned or unlearned, such persons are distinguished for their hypertrophied credulity, and their unsettled opinions in morals and religion, as well as in medicine. They may be known by their mental and social tendencies to erratic views and practices in religion and politics too often. He took a favorable and hopeful view of the Medical Schools in this State, and he regards them as equal to the necessities of the profession.

Of medical journals, he expressed his high appreciation. Indeed it was refreshing to hear such sentiments from one of the oldest and busiest practitioners in the state.

"Already," said he, "do periodicals furnish the busy practitioner with the *larger* share of his professional reading; in them he finds a living panorama of the daily improvements in his chosen profession. Necessity, in the country, prompts to this."

The peculiar differences between country and city practice were commented upon, and a favorable opinion of the rural physician expressed. Common sense, and tender, human sympathies characterize the country practitioners of our state. Their relations to their patients and to families is of the most confiding nature. While the charities of the profession, in country and city alike, are such as no other class of men can give, they constitute a large proportion of his daily duties.

The results and certain advantages of country surgery were presented in a very favorable light, and an opinion expressed that the disadvantages of the bad air and crowding of city residences and hospitals greatly increased the perils of surgery, and render it expedient for country people to remain satisfied with country surgery under ordinary circumstances.

Country practitioners are not apt to relinquish that well-acquired confidence in the curative effects of medicines. Country babies have such advantages from maternal bosoms that they thrive, and if sick may usually be cured.

He observed that "it is not uncommon for eminent city practitioners of late, to lose their confidence in medicines. Some of them in their senility have not hesitated to *write it down*; thus showing conclusively one of two things—either that their perceptive faculties have become blunted by age, or that they were congenitally deficient! Extensive country practice surely has no such effect."

The address was as good as it was brief. It was characterized by the practical knowledge and common sense of the experienced country practitioner.

MORNING SESSION, THURSDAY, FEB. 7, 1861.

After the reading and approval of the minutes Dr. SKILTOX read a paper entitled Sub-peritoneo-pelvic Pregnancy.

Dr. J. MARION SIMS followed with a paper on Amputation of the Cervix Uteri, and also referred to the value of chromic acid as a caustic application to the os uteri.

On motion of Dr. QUACKENBUSH the thanks of the Society were tendered to Dr. Sims, with a request to furnish his paper for publication.

The Nominating Committee next presented their report, and the election which followed resulted in the choice of E. H. Parker; A. Van Dyck, Vice-President; S. D. Willard, Secretary; and J. V. P. Quackenbush, Treasurer.

Dr. J. R. Wood moved that a sufficient number of extra copies of the Report of Dr. Howard Townsend on Medical Education be printed to furnish each State Society in this country, and each college with a copy. Adopted unanimously.

Dr. E. HARRIS offered the following resolutions, which were also adopted:

Whereas the Code of Ethics of the AMERICAN MEDICAL ASSOCIATION is now recognised as the organic law of our profession, and the standard of medical morals throughout the United States, adopted by all associations having a representation in the National Medical Congress; and

Whereas, no systematic efforts have been instituted to indoctrinate the students and younger members of the profession in the elevating and luminous principles and teachings of the Code:

Resolved, That it is of vital importance to the future character and welfare of our profession that medical students be thoroughly taught the nature and scope of this Code of Ethics, and the individual obligations it imposes.

Resolved, That the several medical colleges of this state be requested to incorporate in their course of instruction a brief and appropriate series of Lectures designed to unfold the duties which the Code enjoins, and to impress indelibly the moral and professional obligations which it enforces.

Dr. J. G. ADAMS presented to the Society a specimen of the new remedy for tænia, the *Myrzina Africana*, and described its mode of administration. (See Vol. I. p. 195.)

The Secretary presented the following communications, which were referred to the Committee of Publication: Report of Committee on Statistics by Dr. ORTON; Reduction of Dislocation of the Femur, by Dr. SWINBURNE; Case of Fibrous Tumor of the Uterus, by Dr. DAYTON; Bony Tumor within the Uterus, by Dr. N. C. HEUSTED; and Memorial from the Monroe County Medical Society.

Drs. VAN DYCK and McMillan were appointed a Committee to report at the next meeting upon the subject of diphtheria.

On motion of Dr. GOVAN a vote of thanks was tendered to the retiring officers.

On motion of Dr. SAYRE the meeting then adjourned *sine die*.

Correspondence.

DOMESTIC CORRESPONDENCE.

EDITORIAL NOTES OF THE FIFTY-FOURTH ANNIVERSARY OF THE NEW YORK STATE MEDICAL SOCIETY.

THE proceedings and reports of this Society have always presented pleasing evidences of a wide-spread interest in sanitary inquiries having an immediate reference to the protection of life and health. By reports upon particular epidemics and endemics, and by repeated efforts and addresses designed to awaken attention to Hygiene, and to the preventible causes of disease, the State Society has kept up a general interest in relation to sanitary inquiries. And it is pleasant to notice that year by year the Society is prosecuting these inquiries more systematically, and giving to them a wider scope and more practical application.

Not only do such communications as those by Dr. J. G. ADAMS on Suicides, and Dr. PARKER on the Improper Sale and Use of Opium, receive attention, but this central Society is carrying forward a well-considered plan for the *Registration of Diseases* throughout the State. The unexpected absence of the worthy Chairman of the Committee in charge of the medical statistics thus gleaned, prevented special discussions upon this subject at the present anniversary; but the good work of this registration is going on, and will eventually produce ample results. Associated with this grand pioneer enterprise in the *Registration of Diseases* the Society has instituted another practical plan for the promotion and application of sanitary knowledge. The Committee on Medical Hydrography, which was ordered last year, reported progress, presented the outline of labors to be accomplished, gave a sketch of the Hydrography, *natural drainage*, and the paludal districts of the State, and were ordered to continue their works hereafter as a Standing Committee on *Medical Topography, Climatology, and Hygiene*. Thus it is expected that the individual studies and contributions relating to the public salubrity will be combined and systematized in connexion with the special labors of this Committee. The importance of the labors undertaken cannot be over-estimated, for systematic drainage and atmospheric purification have become leading hygienic questions, and experience has demonstrated the necessity for the scientific study and supervision of such works.

Death presented a long roll of its victims among the members of the New York County Medical Society during the last fifty years. Three hundred and fifty names appear in that catalogue, and not a few of them are honored names. Great credit is due to Drs. JOEL FOSTER and T. C. FINNELL for their *memento-moris* of deceased brethren; and to the worthy Secretary of the State Society, Dr. S. D. WILLARD, is due a perpetual vote of thanks for his carefully prepared memoirs of various deceased members, from year to year. It were well that in every County Society some member should imitate the example of Dr. BRADFORD, of Cortland county, in presenting complete biographical records of their deceased members. Dr. FRENCH, of Lisle, Broome county, is Chairman of the State Committee on *Medical Biography*. Faithfully written, those memoirs will teach valuable lessons and encourage professional virtues.

Referring our readers to the reported Proceedings for an account of the many papers and subjects discussed by the Society, we must say a word about Albany physicians and Albany institutions.

The personal bearing and genial nature of such noblemen as Drs. MARCH, McNAUGHTON, ARMSBY, COGSWELL, VANDERPOEL, HUN, and TOWNSEND, inspire universal respect and confidence. It should here be stated that our correspondent, "IXCOG," has prudently informed us that he is not personally acquainted with those gentlemen, and that he is innocent of any participation in their hospitalities. The grand reunion was this year held at the elegant mansion of Prof. ARMSBY, and was distinguished by the presence of an unusual number of learned men of other professions than ours:—The newly elected Senator, Judge HARRIS, whose manly *physique* and magnanimous countenance everywhere command attention and confidence; PALMER, whose skilful hand makes the solid marble live, and whose lofty form and æsthetic mien inspire reverence for human genius; Senators and State officials, with a ready appreciation of the merits of the *cuisine medicale* and other departments of economical hygiene; Governor MORGAN, whose noble physical powers sustain unharmed the cares of State; and with these were also gathered the Albany *littérateurs* and divines—one of whom very justly remarked that in these days of our country's peril we may thank God that *General Debility* does not sit in every Executive and Senatorial chair.

In closing, we would perpetuate the remembrance of unnumbered courtesies which the physicians of Albany are wont to extend to their brethren from abroad. And with them we may justly rejoice in the prosperity and excellence of their medical institutions. In the Medical College a very complete curriculum of studies is provided, and peculiarly excellent advantages are afforded for the practical study of Chemistry and Anatomy. Some of the dissections to be seen in the Museum are exceedingly delicate and beautiful. The Hospital is worthy its noble founders and its humane purposes. It is under excellent management, and is sufficient for the necessities of the city. An examination of these institutions and the State Museum of Natural History should be made by every physician who visits the capital; and no lover of science and progress can regret the time spent in such places, and in the general society of Albany physicians.

The State Agricultural Society's Anniversary follows close upon the Doctors'. Thus we may ever notice that industrial pursuits and great economic interests at once promote the works and follow the leadings of HYGEIA.

II.

PHILADELPHIA.

Feb. 19, 1861.

Just at present, our medical world is "all alive." The fact of a vacancy having actually occurred in our chief hospital, in addition to an announced resignation in our principal school, with very strong anticipations of several

others in that and the rival college, causes a most lively excitement among our ambitious medicos. Every one who has taught, is teaching, or ever expects to teach, is immensely interested; and although I would not desire to intimate that all the above-mentioned individuals are candidates, possible or probable, yet it would appear that the number engaged in the highly delightful occupation of "boring" for a professorship, is by no means small. It has occurred that "for this time only," the idea of a Southern Professor has been dropped, and it seems that another part of the Union has been regarded as possessing some slight claims for representation. The "mighty West" now urges one of her "favorite sons," though, perhaps, as she has a number of schools of her own, and several of which have expanded to a wonderful extent this year, that may be one reason why the "sunny South" has been temporarily abandoned. Rumor has it, however, that, following in the wake of their illustrious predecessor, they will condescend to look at home, and perhaps by extra microscopic powers may be enabled to perceive some one possessing sufficient talents, etc., to fill one of these much-coveted chairs. As I do not deal in anything but facts, and those which are fixed, you must not expect any names, though the Profession seem quite unanimous as to who is to be the happy man.

Our medical societies have just been electing their officers for 1861. I have been informed that the Phila. Co. Med. Society have for President Dr. Joseph Carson, Prof. of Mat. Med. in the University; Vice-Presidents, Drs. John Forsyth Meigs, and Lewis P. Gebhard; Censor, Dr. John K. Lamb, of Frankford; Treasurer, Dr. A. Nebinger; Recording Secretary, Dr. W. B. Atkinson; Assistant Secretary, Dr. A. O. Stillé, and Corresponding Secretary, Dr. W. H. Gobrecht, Prof. of Anatomy in the Pennsylvania Medical College. Judging from their meetings and debates, as well as their list of members, this Society is evidently the most flourishing and important one in the city.

Extraordinary exertions are being made by the Committee appointed at the last meeting of the State Society to have all the counties represented at the next meeting of that body in Pittsburg, in June. Circulars, etc., are being sent out, and the prospects are fair for the reorganization of defunct county societies, and the formation of new ones. This is a good work, and when successful, as it no doubt will be, it is to be hoped the proper effort will be made to induce the Amer. Med. Association to change its mode of representation, and restrict it solely to state and county societies. Now, any hospital with a small number of beds is entitled to representation, thus introducing as members of that august body, many persons who would otherwise be allowed to remain in their fit obscurity.

The feeling here is quite strong in favor of some action of that body upon the proposed new degree. This will not only protect educated medical men from being classed with the legion of quack M.D.'s, but also aid in keeping from the profession a host of persons who come into it for a variety of reasons, merely by the easy method we have of "making Doctors." For often is the true physician caused to blush by coming in contact with a fellow bearing the title M.D., guaranteed to him by the broad seal, etc., perhaps of his own alma mater. I do not regard this as wholly arising from a want of care in the final examinations, on the part of the Professors of the various schools, for all with whom I have any acquaintance are anxious to uphold the dignity of the Profession; but by means of the numerous quiz classes, it becomes a matter of no difficulty for any one of the most ordinary ability to "eram" sufficiently to pass a pretty severe examination.

Among the recent appointments are Dr. S. D. Gross, Prof. of Surgery, in the Jefferson, as Surgeon to the St. Joseph's Hospital, and Dr. D. D. Richardson as Resident Physician to the Northern Dispensary.

Yours truly,
A. M. LEON.

Medical News.

DOMESTIC ITEMS.—Dr. D. Warren Brickell retires from the *N. O. Med. News and Hosp. Gazette*, with which he has been connected for five years, and is to be succeeded by Dr. Anthony A. Peniston, of the N. O. School of Medicine.—Dr. Brickell announces an *Obstetric Journal*, to be published on the 1st of January of each year, of 400 to 600 pages, the subscription price being \$4.—Prof. Choppin, of New Orleans, has successfully removed the entire uterus with the ecraseur.

FOREIGN ITEMS.—Dr. Walter O'Reilly, a graduate of the New York Medical College in 1851, has been registered by the Irish Branch of Medical Registration, Ireland.—Mr. Wilde has been appointed a Commissioner for taking the Census in Ireland in 1861.—Sir, B. Brodie has had an operation for cataract upon his right eye which promises to be successful.—Dr. Wm. Baly, of London, Physician to the Queen, was thrown from the rail cars, Jan. 28th, and instantly killed.

EPIDEMIOLOGICAL RECORD.—Dr. W. H. Bramblett, of Independence, Grayson Co., Va., writes February 11th: "Diphtheria has prevailed for the last two months, and is still prevailing in the county, though as an epidemic in only one or two neighborhoods. Out of one family of six children affected with the disease, four died. They were treated by an empiric until the second child died, and the two others were nearly so; but one other death occurred in my practice."

A SINGULAR FRACTURE.—The *Burlington Free Press* (Vt.) reports the following case:—Wallace Sessions came with a load of wood into East Middlebury, on the 12th, and driving under a shed, tried to get out, when he discovered that one leg was broken and entirely useless. He shouted for help, but did not make any one hear for more than an hour; and expected to freeze to death, as the thermometer was 25° below zero. How or when his leg was broken, he cannot tell.

TO CORRESPONDENTS.

In consequence of the large number of letters addressed to the Publishers of the *AMERICAN MEDICAL TIMES*, containing the amount of subscription which have not reached the office, Messrs. Baillière Bros. beg to say that they will not be responsible for the loss of any such letters unless they are registered.

Query.—Is the induration following the deep cauterization of chancre of two weeks' standing, as by Ricord's paste, necessarily of a specific character? A nine months' course of mercury, local as well as internal, with adjuvantia, pressure, &c., seems to have but little effect, though it has relieved the secondary symptoms. W. H. B.

Query.—Please to inform a correspondent whether, in your opinion, an ex-professor in a medical college can, in justice, claim a seat as delegate from a college in which he had resigned his professorship. Such a case presented itself at the recent meeting of the N. Y. State Medical Society, and the so-called delegate was admitted by the committee on the ground that he had been elected for four years. Is not this a case for casuists? CORRESPONDENT.

[We were not aware that a seat in the State Society had ever been claimed upon such ground. But in reply to the above inquiry we should not hesitate to express the opinion, that whenever a member of a college faculty relinquishes his connexion with the college he necessarily relinquishes all powers, privileges, and duties that pertained to his professorship and corporate relations in the faculty. He could not, therefore, represent the college in the State Society. The statutes under which that Society is organized provide that all delegates shall be *bona fide* members of the bodies they represent.—ED.]

Chlorate of Potash not Dangerous.—I now have another case of hip-joint disease rapidly recovering under my treatment by the chlorate of potash. It sounds very ridiculous to me to hear of poisoning by the chlorate of potash, when I have taken half an ounce of it at once, and prescribed it so freely, and encouraged its use to such an extent among my brother practitioners of this place, that one hundred pounds of it were dispensed by the druggists of Davenport during the year 1860. This amount—one hundred pounds—was consumed by patients in Davenport and its vicinity; and I have yet to hear of the first case of poisoning from it. I am growing more fond of it every day, and all the time finding new uses for it. Its power is truly wonderful. Those who compare its properties to the nitrate of potash, know nothing at all about it.

DAVENPORT, IOWA, Feb. 12.

E. J. F.

Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE V.

TO-DAY, gentlemen, we commence the study of the *Pneumogastric* nerve. This nerve originates from the lateral portion of the medulla oblongata, a little behind the glossopharyngeal, which we examined yesterday. Like that nerve, the pneumogastric arises by a considerable number of filaments, and, passing from within outwards, enters the same bony canal which contains the glossopharyngeal. While passing through this canal, the pneumogastric nerve has upon it a ganglion, through which its fibres pass, and with the nerve cells of which these fibres are closely intermingled. Now the origin and course through the cranial bones, both of the glossopharyngeal and pneumogastric nerves, are, as you will see, exceedingly similar; and when we have examined more fully their distribution and functions, I think we shall come to the conclusion that, physiologically speaking, the glossopharyngeal nerve is but little more than a part of the pneumogastric; and that the distribution of the pneumogastric filaments is in reality hardly anything more than a continuation of those of the glossopharyngeal.

Let us go over in the first place the details of the origin, distribution, and characters of this nerve. You have here a dissected specimen, in which is shown the origin of the pneumogastric, and its course through the bony canal. It originates by a number of filaments from the medulla oblongata, passes from within outwards to the posterior foramen lacerum, pursues its course through the bone, the substance of which is here cut away to show the situation of the nerve, and then runs from above downwards through the posterior part of the neck. In this instance, therefore, you have the pneumogastric nerve passing through the bones of the head in the same way as the spinal nerves pass through the bony walls of the spinal canal below; and the other, and perhaps more important, analogy between them is, that just as the pneumogastric is passing through its bony canal, it has upon it a distinct ganglion, like that on the posterior root of a spinal nerve. By examining the pneumogastric in this preparation, at a short distance from its origin, you will see this ganglion, in which the filaments of the nerve, previously separated from each other, are united together into a single cord. Continuing its course from above downwards, the nerve then emerges from the base of the skull, in company with two others, the glossopharyngeal and the spinal accessory.

The pneumogastric is distributed to a number of different regions, and it is on account of this varied distribution, and its wandering course, that it has received the name of the *par vagum*. It is also called *pneumogastric*, because its principal distributions are those to the stomach and the lungs.

In enumerating the principal branches given off by the pneumogastric, and which will now engage our attention, we shall be assisted by a reference to this diagram. At this point, just external to the origin of the nerve, you have its ganglion. Below the ganglion the nerve gives off its first branch, the *pharyngeal* branch, which is distributed to the mucous membrane and muscular coat of part of the pharynx. You will remember that the glossopharyngeal nerve is distributed to the remaining portions of the same organ. Then the pneumogastric passes from above downwards through the neck into the cavity of the chest.

During this passage it gives off two very important nerves, which are distributed to the larynx. The first, or the *superior laryngeal*, running off from the anterior part of the pneumogastric from above downwards, and from behind forwards, is immediately distributed to the larynx. This superior laryngeal nerve has properties which are well marked and important. It is especially a sensitive nerve, and is distributed exclusively to the mucous membrane of the larynx, with the exception of a single motor branch, which it sends to the crico-thyroid muscle.

After the pneumogastric nerve has given off its superior laryngeal branch, and has passed through the whole length of the neck, and entered the cavity of the chest, it sends off another very remarkable branch which is termed the *Recurrent* or *Inferior Laryngeal*. It is called recurrent, because after being given off from the pneumogastric, it turns backwards, underneath the arch of the aorta, on the left side, and the arteria innominata on the right, and then retraces its course from below upwards, running in the fissure between the trachea in front and the œsophagus behind, until by this reversed or recurrent direction it has reached the level of the larynx. It then enters the larynx, and is distributed to all the muscles of the organ, with the exception of the crico-thyroid, which, you will remember, is supplied by a filament of the superior laryngeal. We have then these two nerves originating from the same trunk, viz. the pneumogastric, and distributed to different parts of the larynx; the superior laryngeal to its mucous membrane, the inferior to its muscles—a sensitive and motor nerve originating from the same source, and distributed to the same organ. The relations, therefore, of these two nerves in the larynx are very much the same as those of the lingual branch of the fifth pair, and the hypoglossal nerve in the tongue.

After giving off the inferior laryngeal nerve the pneumogastric nerve supplies a number of branches to the lungs, which follow in their course the ramifications of the bronchial tubes. The nerve then enters the cavity of the abdomen, to be distributed to the mucous membrane and muscular coat of the stomach, and finally, by several terminal branches, to the liver.

Such is the anatomical distribution of this nerve. Now let us see what are its properties and its functions. In the first place we find that the pneumogastric at its origin is a *sensitive* nerve. If irritated in the interior of the cranium, by opening the cavity of the skull, and passing a galvanoelectric current through the nerve, no convulsive muscular action is produced. On the other hand, if the same irritation be applied to the nerve beyond the situation of its ganglion, convulsive movements are produced, in all the muscles which are supplied by its various branches, viz. the muscular coat of the pharynx, the muscles of the larynx, and the œsophagus and stomach. We find, then, that this nerve, like certain others originating from the head, and like the posterior roots of the spinal nerves, is exclusively sensitive at its origin; but that after its emergence from the cranial cavity, it becomes a mixed nerve, containing motor filaments, derived from inosculation with other motor nerves. The motor nerves with which the pneumogastric inosculates after its passage through the ganglion are the spinal accessory, the facial, the hypo-glossal, and the first and second cervicals.

Now the sensibility which resides in the pneumogastric differs to a considerable extent from the ordinary sensibility of the spinal nerves, and other cranial nerves. It is not like that of the fifth pair, for example. On the contrary, the pneumogastric nerve conveys to the medulla oblongata that peculiar sensation which is connected more particularly with the function of respiration. Therefore we are not surprised to find, that although the pneumogastric possesses sensibility, this sensibility is also of a special nature, and not acute, like that of other nerves. The peculiar function of the pneumogastric can be determined by similar means to those which we have employed for the study of the other nerves. We divided the fifth

pair, for example, and found that sensibility was lost in those parts to which the nerve is distributed; and we therefore concluded that it was the function of the fifth pair to confer the power of sensation upon these parts. Now, if we divide the pneumogastric nerve, we find that the effect which is produced is a very peculiar one. For the function of this nerve is not only to a great extent special in its nature, as I have already intimated, but it is also a very *compound* one. As the filaments of the nerve are distributed to many different organs, we therefore have a compound effect produced by its division; and this effect is of such a nature as to require the utmost care and nicety in appreciating the relative importance of the different elements which enter into its composition.

The most remarkable of the effects produced by a section of the pneumogastric have been found to be those which are connected with respiration. This is, in fact, the great nerve of respiration; and consequently, when it is divided, the respiratory function is modified in a very peculiar way. Certain variations show themselves in the results of the operation, but, in the great majority of instances, its principal effect is to *reduce the frequency of the respiratory movements*. We must remember that the pneumogastric is not a motor nerve; the intercostal muscles and the diaphragm have their own nerves of motion, which act independently of each other. If the division of the pneumogastric, therefore, interferes with respiration, it must do so by suspending some peculiar sensation which is connected with the performance of the function. This is undoubtedly the case. Dividing the nerve cuts off a peculiar impression which gives rise to the reflex action of the respiratory muscles. I have here an animal (a dog) in whom the pneumogastric nerves have been already dissected out on both sides of the neck. I will now proceed to expose the nerves and divide them, when you will be able to judge first, of the amount and character of the sensibility which resides in the pneumogastric, and secondly, of the peculiar effect produced by its division upon the function of respiration. You will remember that, in dividing the fifth pair some days ago, notwithstanding the previously etherized condition of the animal, when the sensitive filaments were cut across, their sensibility was so excessive that the animal was partially roused from his unconsciousness, and indicated his uneasiness by distinct cries. In this case, however, the animal has almost entirely recovered from his etherization. If, therefore, the same amount of ordinary sensibility resides in the pneumogastric that we found to exist in the fifth pair, we shall have a very acute pain produced by its division. Generally speaking, however, very little pain is produced even by the section of the entire trunk of the nerve on both sides; and frequently the animal appears utterly indifferent to the operation. A ligature has now been passed around the nerve on each side, so that I can readily lift it from its bed. I will now, in the first place, divide the nerve upon the right side. A very slight indication of sensibility, you see, is the result. I will now do the same thing upon the opposite side, and you will see that here also there is hardly any indication of feeling on the part of the animal. The effect of the division of this nerve upon respiration, however, which will show itself in the course of a short time, is not yet shown by any decided symptoms. This effect of diminishing the frequency of the respiratory movements is accomplished, as I have already stated, by diminishing the animal's desire to breathe. He, therefore, breathes more slowly than before, not from any physical obstacle to the entrance of air into the lungs, but simply because he does not feel the urgent necessity for respiration which usually exists. I will keep this animal, and to-morrow we will again examine his condition. We can then see what progress has been made in the effects produced upon the lungs and other vital organs.

At the same time, however, I must call your attention to another very important effect produced by a division of the pneumogastric in the middle of its course. By this operation we divide, at the same time with the main trunk of the

nerve, the filaments of the recurrent laryngeals, and, therefore, we necessarily paralyse the muscles of the larynx. Now the larynx has a very important office to perform in connexion with the process of respiration. There are respiratory movements of the glottis as well as those of the chest, and these respiratory movements of the glottis are almost equally important with those of the thorax. At every movement of inspiration the vocal chords are separated from each other so as to increase the opening of the glottis, and at every expiration they collapse and tend to fall inwards towards each other. Thus, whenever the thoracic muscles act to expand the chest, at the same instant the muscles of the larynx open the glottis in order to allow the entrance of the air. We can see this action of the glottis in some of the lower animals without the necessity of any special operation. In this pigeon, for example, by opening the mouth widely, you can see the glottis situated at the base of the tongue, and opening widely at every inspiratory effort. In order to illustrate this action of the glottis I have here a dog, which I will etherize, and whose glottis I will then expose by an operation similar to that which would be employed for pharyngotomy or œsophagotomy. In fact it will be a combination of these two operations. I will dissect through the tissues of the neck, until I come down to the pharynx and œsophagus, after which I intend to open these canals in such a way as to gain access to the posterior surface of the larynx. You can then see the movements of the glottis as they take place during the process of respiration.

I now make an incision extending from the angle of the lower jaw downwards along the track of the carotid artery to the lower part of the neck. I have now exposed, in the first place, the fibres of the platysma myoides. I cut through these fibres, which, in the dog, are very fully developed, forming a tolerably thick muscular layer, and then expose the external jugular vein. This vein also is very large in these animals, as compared with the internal jugular, in consequence of the great development of the external parts of the face, in comparison with the brain. I now place a ligature upon the anterior branch of this vein, which receives the facial vein, at the upper part of the wound, and turn it over forwards. A great many vessels usually require ligature in this operation, as the dissection is a very extensive one. I have now exposed the common carotid artery during a considerable part of its course, and will proceed to place a ligature upon it, so as to diminish as much as possible the supply of blood through its branches. We shall, however, still find a considerable amount of hemorrhage from the branches of the carotid as we proceed in our dissection, in consequence of the free inosulation which exists between the arterial branches on the two sides. You now see the superior laryngeal nerve. I will divide it, and you will observe that there is no visible muscular contraction produced, the crico-thyroid muscle, which is concealed from view, being the only one which is supplied by this branch. It now only remains, gentlemen, to secure the lingual artery, which runs across the upper angle of the wound, and to divide it together with the hypoglossal nerve which accompanies it.

I now raise the hyoid bone with the aid of a pointed hook, divide it with the bone forceps, and then cut through the walls of the pharynx continuing the incision downwards through the pharynx and œsophagus in this manner. Then we can turn the larynx forward, and expose in this way the opening of the glottis. We now have a clear view of the glottis, and as you watch its movements you will see that every time the chest expands the glottis opens, and when the chest collapses the glottis collapses also. At present the respiration is exceedingly quiescent; but in a few moments, when the respiratory movements will probably become more labored and active, you will see the movements of the glottis increase at the same time in rapidity and extent. You will observe also that so long as the animal makes no vocal sound the glottis is never completely closed, not even in prolonged expiration.

Now, I presume, as the animal appears to be gradually emerging from his etherized condition, we shall very soon see the movements of the glottis become more marked; and their characters are still more exaggerated whenever a vocal sound is produced. For in making a vocal sound you will observe that the vocal chords become tense at the moment of expiration, and the opening of the glottis is narrowed, by their approximation, to an almost imperceptible orifice.

I will now expose the two inferior laryngeal nerves, and divide them, one after the other, in such a way that we can appreciate the effect of their division upon the movements of the glottis. You perceive when the section of each nerve is made, that the corresponding side of the glottis is instantly paralysed. What is the consequence of this? Now, after division of both the nerves, as the animal inspires, you observe that these movements no longer take place. The inspiration consequently is difficult, the glottis no longer opening actively as before, and air therefore cannot gain a ready access into the chest. The only way of overcoming this difficulty would be to open the trachea below; for now the obstacle to respiration is not that the animal does not desire to breathe, but because it is impossible for him to do so owing to the mechanical obstruction of the glottis.

I will now break up the medulla oblongata, by introducing a steel instrument into the occipital foramen, and immediately all respiration ceases; not because there is any more complete mechanical obstacle to inspiration than before, but because the nervous centre being broken up, the reflex actions no longer take place which should result in the respiratory movements, and these movements, therefore, necessarily come to an end.

Original Communications.

DIFFICULT OBSTETRICAL CASES,

BY GEORGE T. ELLIOT, Jr, M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING
PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

(Continued from page 129.)*

CASE XXIII.—*Forceps—Tedious Labor from Rigidity—Safety of Mother and Child.*

Mrs. —, Nov. 1860, aged 24, first labor; post. font. to right sac. il. syn. Male child living; mother did well; membranes ruptured at 4 A.M.; slight discharge of liquor amnii, and scarcely any more during the rest of the labor, which was one of the "driest" that I ever saw. Tried injections of flaxseed tea, white of egg, lard, oil, glycerine. Vagina and perineum rigid and unyielding; chloroform for about ten hours to a moderate extent; pains very good; foetal heart distinct. Sixteen hours after rupture of membranes I sent for a consultation, as the head had not changed its position for some hours. Post. font. now directed to right acetabulum. Professor Gilman saw the patient with me, and recommended forceps, which I applied. In this case the perineum was very rigid, and the anus widely open, as often happens in such primiparae. In delivering her, which I happily succeeded in doing without the slightest laceration of the perineum, much assistance was gained by introducing occasionally two fingers well within the rectum, to make sure of the relations of the blades of the forceps to the foetal head. It often happens, when the head of the child is seized obliquely, that the convex edge of one blade projects beyond the foetal head, and if allowance be not made for this contingency in such a class of cases as this, the vagina may thus be lacerated or cut through while the operator is giving all due attention to the perineal four-

chette, and to traction in the axes of the inferior strait. Indeed the accident is most likely to happen to the man who is making traction in exactly the right direction, for he thus presses the posterior vaginal wall most firmly with the free edge of the forceps blade. I have often received much assistance from this slight attention per rectum to the posterior vaginal wall, and I believe that lacerations of the vagina take place in forceps deliveries much more frequently than is generally supposed. An instance of laceration of the vagina, from exaggerated attention to another rule for forceps delivery, is given in the next case.

CASE XXIV.—*Forceps and Lacerations of the Vagina—Subsequent Forceps Delivery of a Living Child—Recovery of Mother.*

I was sent for in consultation to a multipara attended by two physicians, and reached the house a little before Dr. T. F. Cock, who had also been summoned. Foetal heart beating, post. font. to right sac. il. syn. Forceps had been applied, but had failed to deliver. On each side of the vagina, opposite the junction of the pubic and ischiatic rami, were lacerations, evidently produced by pressing the forceps too firmly against these bones in an exaggerated side to side lever movement. I applied my forceps, and rotating the occiput to the pubes, delivered a living child. Mother subsequently did well. Chloroform.

This side to side movement is often very much exaggerated by gentlemen, who forget that a fulcrum ought not to be made of the soft tissues covering the bony pelvis.

If the recto-vaginal septum should be torn through, no time should be lost in sewing it up with metallic sutures. I reached Bellevue Hospital on one occasion just after one of the House Staff had lacerated this septum in a forceps delivery, and immediately sewed it up with silver wire; the septum healed, the perineum did not. It does not seem to me that the rule is imperative in cases of laceration of the perineum alone. I have been able to keep under observation for some years, and in subsequent labors, some cases in which the perineum has been lacerated down to the sphincter, and have been surprised at the restoration of parts even without systematic care or dressing. This, however, is one of the questions that will be settled within a few years.

CASE XXV.—*Forceps—Perforator—Impacted Head—Recovery of Mother.*

Saw a negress, in consultation with Dr. —, in whose pelvis a large and well ossified foetal head had become firmly fixed. Foetal heart beating. Used all the traction that I could with forceps without advancing or moving the head one iota, when I perforated and delivered. This is certainly the most disagreeable duty in midwifery, but when the head is impacted in the pelvis, and where there is nothing left to anticipate but injury to the mother from delay, responsibility should be frankly assumed by any one who can conscientiously feel that he is capable of using, and has used, every alternative to prevent the result.

CASE XXVI.—*Tedious Labor—Ergot—Forceps—Child still born—Mother recovered.*

Mary Collin, aged 21, first. Jan. 1861. Duration of labor 56 hours. Still born male child weighing 8½ pounds, L. O. P. Dr. Page, House Physician, Bellevue. Eight hours before terminating the delivery I advised ergot, (vagina cool and moist, foetal heart beating) as there had been no advance for many hours. Under its use marked progress was made, and at half past one, as there appeared a good likelihood of the delivery being terminated without instrumental interference, I decided to wait a few hours longer. At half past four, there was no foetal heart, and the vaginal discharges were offensive and of an olive green color, while no further advance had been made. The cause of the delay was not very clear to me, but it is certain that the vagina was unusually small and unrelaxed. Having decided to apply forceps, I delivered, in presence of the House Staff, having to perform rotation and extension; and derived great assistance from examining the posterior vaginal wall through

* Vide also *New York Journal of Medicine* for Sept., 1856; Jan., May, Sept., 1857; March, July, Sept., Nov., 1858.

the rectum, as elsewhere recommended. Fourchette slightly lacerated. Chloroform. It would have been better to have delivered her with forceps before. In two recent cases, I have been very much pleased with the result of ergot. One at West Point, seen in consultation with Dr. Lent, responded happily to this drug—mother and child doing well. Another, seen in consultation with Dr. Lambert, progressed rapidly to a termination with safety to mother and child, after using ergot. In both cases the ergot was given, as in the case of Mary Collin, in order to save, if possible, an instrumental delivery.

CASE XXVII.—Deformed Pelvis—Dwarf—Forceps—Version—Still-born Child—Death of Mother from Puerperal Fever.

Ellen Burnheimer—Bellevue—aged 29, first labor. Duration of labor, thirty-four hours. Female child—still born—weight seven pounds—L. O. A. Mother died seventeen hours afterwards from puerperal fever, then prevalent in Bellevue Hospital.

Forceps failing to draw the head through the contracted brim, I delivered by version. Chloroform.

CASE XXVIII.—Forceps for Febrile Symptoms in a Puerperal Fever Epidemic—Living Child—Death of Mother from Fever.

Ellen Fagan—Bellevue Hospital. Dr. E. B. Barrett, House Physician. Waters discharged March 26th, 7½ P.M. At 10½ P.M. pains not very efficient, pulse going up, and vagina hot. I was sent for. Found the head just emerging in the superior strait, first position. Consulted with Dr. Barker, and delivered with forceps at half past twelve. Child living, male, weighing nine pounds. No laceration of perineum. Chloroform. Died on the ninth day from puerperal fever. Forceps decided upon in the hope of diminishing the risk from an epidemic of puerperal fever which then threatened all our patients. We have seen cases of natural labor in which the fatal symptoms have appeared before delivery.

In all cases of labor, excepting in primiparæ, I habitually give ergot after delivery of the placenta as a prophylactic against afterpains, and metritis, a practice which I have upheld for eight years. It seems to me most reasonable that the firmer the permanent uterine contraction the less the risks of uterine inflammation from the diminished amount of blood permitted to circulate in the uterus; the absence of decomposing clots and discharge in the cavity of the organ, and the contracted condition of the uterine sinuses as well through the uterine tissue, as near the mucous membrane.

CASE XXIX.—Forceps—Ante-partum Hemorrhage—Mother and Child did well.

Ann Martin, aged 25, third confinement, April 18th, 1852. Head presented, post. font. to left sac. il. syn—ten hours in labor—male child. Lying-in Asylum.

When the os commenced to dilate, hæmorrhage followed to about a handful of clots. Rotation delayed—tendency of occiput to sacrum. Chloroform. Fœtal heart beating slowly. I applied the forceps, and rotated the occiput in front. Child feeble, but rallied. Mother did well.

CASE XXX.—Twins—Forceps—Douche—One Child living—Mother did well.

Bridget Fury, aged 24, second confinement, May 26th, 1853. Sixty hours in labor—first stage fifty-eight. First child presented the head, second position; weight six pounds; living. Second child, head first position; weight six pounds; living. Single placenta weighing two pounds. Lying-in Asylum. Os undilatable in spite of time and morphia. After thirty-six hours a half pailful of warm water injected within the os by Higginson's syringe. No effect. Subsequently a sound was promptly followed by pains and dilatation. Chloroform then for four hours, when I applied the forceps to the first child, and delivered with difficulty. Second child born readily. Mother did well.

CASE XXXI.—Deformed Pelvis—Forceps—Child Born Alive but did not Live—Mother did well.

Rosa Keenan, aged 22, first labor. Head presentation,

first position—duration seventy-two hours—female child, born alive, but did not survive—weight, seven pounds eight ounces. June 28, 1852.

In her childhood this patient dislocated the right femur on the dorsum of the ilium, and reduction was never effected. The true pelvis was unaffected except in the outlet, where the corresponding rami of the pubes and ischium were straighter than natural, and interposed a firm barrier to delivery. Twelve hours before delivery, I gave a full dose of ergot, and intended to call during the night to see the result. But I did not awaken until morning, when the nurse informed me that the pains had been so continuous and severe as to drive Rosa from her bed, and cause her to roll on the floor in agony. Fœtal heart unaffected. No progress. She was in the Lying-in Asylum, and I sent for Drs. Cheesman and Metcalf, who arrived and decided to deliver with forceps. I could not introduce the second blade, and Dr. Cheesman carried it successfully to its position by at once placing it behind the right acetabulum. The deformity had prevented me from giving it the accustomed spiral sweep required from the fact that rotation had not been effected. The child was delivered with difficulty alive, but did not survive. This lesson, which I then learned (June 28, 1852), has been of service to me in a number of cases since that time. No chloroform given.

CASE XXXII.—Forceps—Peritonitis—Safety to Mother and Child.

Dr. W. W. Jones sent for me to see this patient, and has kindly written the following history of the case.

"Mrs. E. C., 23 years of age, primipara, was taken in labor on the morning of November 30, 1859. During the day the pains were slight, but in the evening they became strong and regular. The head presented in the left occipito-anterior position. At twelve P.M., the os uteri was fully dilated; the membranes ruptured, and the head had descended nearly to the perineum. After this, though the pains were vigorous, there was no further advance. On searching for the cause of the delay, a firm tendinous band was found stretching across the upper part of the vagina, on the right side, which resisted any further advance, though the head was forced strongly against it with each pain. After some hours' delay, a vein was opened and a moderate amount of blood taken. December 1, 10 A.M.—The head remaining in the same position. Dr. Elliot saw the patient. Chloroform was given at once, and Dr. E. proceeded to deliver by the forceps. The blades were applied with great facility, but, though powerful traction was made, the head could not be moved. Dr. E. then withdrew the instrument, and reapplying it in a different position, rotated the head, and effected the delivery. The child was born asphyxiated, but by plunging it alternately into warm and cold water, and by artificial respiration, it was perfectly restored. Notwithstanding the force required in effecting the delivery, there was no abrasion, and hardly the slightest mark on the child's head or face. Immediately after the delivery a full dose of ergot was given, and the uterus contracted firmly. December 3.—To-day was taken with symptoms of peritonitis. Hydrarg. chlorid. mitis gr. x. with sulph. morph. gr. ½ was given, followed by castor-oil, hot fomentations applied to abdomen, and, as soon as the bowels were moved, she was put on Magendie's sol. sulph. morph. gtt. x. every two hours, so as to produce narcotism—beef tea given freely.

This was continued until December 5, 10 A.M., when it was found that though the pain was relieved, and the respiration very much reduced below the natural frequency, the pulse had risen to one hundred and sixty beats per minute. She was then put on tinct. verat. vir. three drops, gradually increased to nine drops every three hours. This rapidly reduced the pulse, bringing it down in twelve hours below one hundred, and in twenty-four hours below sixty. As the effect of the morphia subsided, the pain returned, and it was found necessary to alternate the remedies. She was also early in the disease put on the use of stimulants.

December 8.—Patient materially improved, and on the 12th convalescent."

CASE XXXIII.—*Forceps—For Delay—Amylene.*

Eliza Douglas—Bellevue—Dr. Draper House Physician—aged 29, second confinement, labor commenced May 17, 1857, at six A.M., and was terminated on the 18th at eight P.M. Position R.O.A. Before applying forceps 3 iij. of amylene (all that I had with me) were given to the patient without successfully inducing anæsthesia; chloroform was then administered, and the patient promptly put to sleep, when I delivered a female child weighing between seven and eight pounds. The child did well, I believe—mother recovered.

This is the only case in which I have ever used amylene, its behavior in that instance not tempting me to experiment further.

CASE XXXIV.—*Forceps in Lingering Labor—Safety of Mother and Child.*

Dr. — sent for me in consultation, in April, 1859, to Mrs. —, a primipara, about twenty years of age, who had been in labor for two days, the membranes having been ruptured nearly thirty-six hours. The posterior fontanelle was to the left acetabulum, the movement of descent not completed, rotation unaffected, foetal heart beating, vagina cool and moist, patient fatigued. The patient having been brought under the influence of chloroform by Dr. —, I applied the forceps with the concavity of their pelvic curve to the left, rotated, and delivered a living female child of large size, which did well, as did also the mother. In this case an ineffectual effort at delivery with forceps had been made before my arrival.

CASE XXXV.—*Forceps for Rigidity—Safety for Mother and Child.*

Catharine Hallaran—first labor—forty-five years old, vertex—twenty-eight hours in labor. Delivered her with forceps of a living male child—chloroform. Mother believed to have done well. December 17th, 1852. Out-patient of Lying-in Asylum.

CASE XXXVI.—*Head and Funis—Forceps—Living Child—Mother did well.*

Mary Loftus, third labor, aged twenty-nine. Head presentation complicated by prolapsed funis. She had been in labor five hours, when I delivered her with forceps of a living male child partially asphyxiated—chloroform. January 20th, 1854. Out-patient, Lying-in Asylum.

CASE XXXVII.—*Forceps for Rigid Perineum—Safety for Mother and Child.*

Ellen Brady—February 8th, 1854—first labor—thirty-two hours in labor. Head presentation R. O. A. Female child living. Forceps for rigid perineum and delay—chloroform. Mother believed to have done well. Out-patient, Lying-in Asylum.

These out-patients of the Asylum who are stated to have done well, according to the best of my belief are patients who did well as long as they continued under observation, and who would have probably sought advice if more had been needed.

CASE XXXVIII.—*Version for Transverse Presentation—Fracture of Right Arm—Forceps—Both did well.*

Kate Brown—Bellevue Hospital—second confinement—aged twenty-seven, fell in labor July 28th, 1859, at 8 A.M., under the care of Dr. Reuben Cobb, House Physician, who recognised a transverse presentation, left shoulder presenting, head in right iliac fossa. I arrived at half-past ten A.M., and the patient being under chloroform, delivered a living male child, weighing eight and a half pounds, by podalic version. The arms and head were retained above the brim, and I fractured the right arm in drawing it down. Manipulation of the head being unsatisfactory, I delivered promptly with forceps and saved the child. The fracture was treated, I believe, by Dr. George Johnson, now of Brooklyn, then one of the House Surgeons of the Hos-

pital. I have never known an unsatisfactory result from the treatment of the fractured limb of a neonatus.

CASE XXXIX.—*Forceps for Deformity of Brim—Mother did well—Child's Face Lacerated—Died on Tenth Day from Erysipelas—History of former Labors.*

Mrs. —, fourth confinement—January, 1859. No memorandum of the exact number of hours in labor, nor of the time when the waters escaped. By 3 A.M., however, the pains were strong and regular, and the os uteri fully dilated. 7 A.M.—No advance except of the caput succedaneum—head retained by the brim. Ergot given until it produced its characteristic pains. 8 A.M.—No progress. Vagina, which had been cool and moist at five A.M., now becoming hot and dry. I was then called and recommended forceps, which the physician in attendance applied after chloroform had been given, and made powerful traction until they slipped. As he was suffering from a severe sick headache, which was greatly increased by his efforts at traction, he requested me to deliver, and I re-applied the forceps exactly as he had applied them before, and with great difficulty drew the head through the brim, rotated the occiput in front and delivered a living child, with a laceration upon the cheek midway between the eye and the mouth, about an inch long, produced by the point of the corresponding blade. This was brought together with silver wire at once, but the child died on the tenth day from erysipelas, which unfortunately attacked the face, and was aggravated by neglect of the parents to feed the child properly, the mother having no milk at all. She made a good recovery. My forceps were used. The cause of delay was diminution of the ant. post. diameter of the brim by projection of promontory. In the first labor I delivered a living child with forceps, with the left parietal bone so deeply indented by the promontory as to allow more than one finger to be laid therein. Dr. Isaacs gave chloroform—child now living; no trace of the depression. The second child presented the breech, and I arrived when the body was born and the child dead. Chin in front to the right. Dr. Gouley gave chloroform, and I rotated the chin posteriorly with forceps and delivered. The third child was smaller, and withholding chloroform—for which she begged piteously—I succeeded, with ergot, in driving a living child through the contracted brim. In the present instance no such favorable result was to be anticipated, the full force of uterine contractions, stimulated by ergot, having only increased the caput succedaneum and not advanced the cranium.

TREATMENT OF FRACTURES OF LONG BONES BY SIMPLE EXTENSION.

A PAPER READ BEFORE THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, FEBRUARY 6, 1861.

BY JOHN SWINBURNE, M.D.,

OF ALBANY.

At the annual meeting of the Medical Society of the State of New York, for the year 1859, I gave my experience in the treatment of fractures of the femur by simple extension, and related the histories of twenty-five cases, which, in my hands, had resulted better, with more rapid recoveries, and more comfort to the patient, than I had been able to attain by any other means. I now propose to show that the same method can be applied to the treatment of fractures of all the long bones with equal success; and also that splints *per se* are useless, and in many instances worse than useless, if not absolutely injurious, except they are used as a medium by which the muscles are kept on the stretch.

I will endeavor to show from actual experience, first, that the practical surgeon requires no appliances for the treatment of fractures of any of the long bones, except such as are extemporaneously made; second, that the same can be said of the treatment of fractures occurring in, or in close

proximity to any joint, such as intra-capsular fracture of the neck of the femur, Colles' fracture of the radius, those involving the elbow-joint, the surgical neck of the humerus, compound dislocation and fracture of the ankle-joint, compound fracture of the tibia and fibula, etc.; thirdly, that the same is true of diseased hip-joint, morbus coxarius, also incipient knee-joint disease. These several points I shall discuss separately, as well as the principles involved in the procedure.

I would ask of what service is a splint or splints? What office do they perform in the treatment of fractures? Authors say, they support the bone while union is being effected. I would ask, how many fractures of the long bones can be placed in apposition without the use of extension, particularly in oblique fractures, or where there has been great injury to soft parts, and overlapping of the bones? I know of few exceptions. The true use of splints *should* be to keep the fractured ends of the bone in apposition, by placing the muscles on the stretch, and thereby making them (the muscles) the true splints. The experiments of Reid and others show, that muscles are not susceptible of being stretched beyond their normal capacity; that when so stretched, they are capable of bearing great lateral pressure without much deflection; and any attempt at undue lateral pressure results in rupture of the muscular substance.

The supporting power of the muscles may be pretty well illustrated by the following experiment: Take a strip of wood, and encircle it lengthwise with a number of cords of catgut or other strong fibre. Fasten these cords to two pieces of board, and then, by drawing these boards strongly apart, render the cords tense. The cords represent muscles; the strip of wood, bone; and the tightening of the cords, extension and counter-extension. While the investing cords are in this tense condition, endeavor to bend the strip of wood, when it will be found that the deflection is very slight, and that fracture of the stick is impossible. Replace this strip of wood with one broken through the centre, endeavor to bend it while the cords are tense, and the deflection in this case will also be very slight. To carry out the analogy still further, let the cords be attached to the ends of the strip of wood, as the muscles are virtually at the ends of a bone. Now, if the fractured ends happen to be square (representing a transverse fracture of bone), they will be in apposition while the cords are made tense, but when the tension is relaxed the stick is no longer straight, and it bends to one side or the other as the case may be. Now, represent an oblique fracture of bone, by cutting the fractured ends of the stick to any angle, oblique or acute; while the cords are stretched by extension the ends lie in juxtaposition, but when the extension is relaxed, the ends slide past each other, and lie at rest, side by side, in the only position possible for them. Suppose this broken stick, instead of being enveloped by simple threads, was covered with muscles put upon the stretch, and bound laterally by strong investing fascial and cellular tissue, the interstices of which are filled up with fat and invested by the skin, so as to combine the separate parts in one whole, you would have then, I apprehend, splints more permanent, unyielding, and enduring than any artificial appliances. How is it, for instance, where nature is left to herself, without any mechanical appliances? The bone unites, and that too without any bandages or lateral pressure, though with more or less deformity. But it unites, notwithstanding the motion which takes place almost hourly.

All that nature requires for perfect union of bone is rest and a moderate degree of excited action, while all pressure by splints, bandages, etc., only impedes the process of reparation; and this pressure, in my humble opinion, is a prolific cause of non-union, as I will endeavor to demonstrate hereafter. While nature requires rest for bony union, she requires also *perfect apposition* for union without deformity. How is apposition to be effected? We start with the knowledge that a muscle cannot be extended beyond its normal capacity, and that any attempt to go beyond this not

only provokes resistance, but a tearing of the muscle. Take, for instance, a fractured thigh; extension on the extremity, by a strong man, will stretch the muscles to their normal length only, which fact can be shown by the most careful measurement, thus proving that the danger of *too much* extension is only imaginary. With the muscles drawn out to their natural state, what becomes of the bone? Where can it go, if not to its normal position, with the fractured ends in contact?

Let any one take the cadaver, dissect out cleanly and carefully all the muscles of any long bone, leaving all their attachments entire, and after fracturing the bone at any part, make extension. He will find that the fractured ends assume their normal position. Would they not equally do so in the living subject, where muscles are invested with skin, fat, fasciae, cellular tissue, and vessels?

Again, assuming the position that the extended muscles act as permanent adjusters of broken bones, and are in reality the only means by which the fracture is maintained in apposition, I ask of what use are all the mechanical appliances and apparatus, called surgical *splints*, if not to effect the above-named results? The splint beyond this possesses no practical worth; on the contrary, it is apt, by its too careful adjustment, to impede the reparative process, by interfering with the proper circulation of the part. It is for *this* reason that some surgeons make it a point to apply emollient dressings until the inflammation and the swelling subside. Even this delay is far preferable to the immediate application of carefully adjusted splints, bandages, etc., particularly where there is much contusion of the soft tissue, either from the bone within, or externally from the forces by which it was broken. Take, for example, two limbs equally contused, the sharp edges of the broken bone goring the muscles and nerves, the cellular tissue filled to repletion with blood, and the slightest movement causing the most excruciating pain. Subject one of these to simple extension, without any incumbrance to the broken member, such as splints or bandages, apply simple warm water dressings, and in a few minutes the patient is easy and comfortable, and remains so as long as the extension is kept up. Let the other limb be adjusted by the most careful and approved surgical appliances (unless these are such as keep up the extension without bandages or compression), and there will be a marked difference between the two in the degree of comfort experienced.

Then we may say that in extension the muscles and other investments of the bone are the true splints, and that there is but little exception to this principle being universally applicable. Surgeons situated in remote parts of the country have to act and not originate. They see comparatively few cases of surgery, and are the possessors of fewer instruments and surgical appliances. They may be called a number of miles to see a patient, and find, when they arrive at the house, that the appliances which they are in possession of do not answer the purpose. What are they to do? Send for some one at any distance, thereby wasting much time and entailing much unnecessary suffering? If we can treat any fracture occurring in the leg or thigh, from the hip to the foot, simply by a perineal belt and extension from the foot, without any splints, and make better results, with more comfort to the patient, and with more speedy recovery of the use of the limb, we have surely arrived at the grand desideratum; and when the treatment of fracture of the arm or forearm is rendered equally as simple, we have, I apprehend, arrived at the *ultima Thule*. As for myself, I employ this treatment indiscriminately, and I only ask my professional brethren, who have the opportunity to *try* it, to do the same, and I am sure they will be able and willing cheerfully to bear witness to its entire efficiency, as have my friends Drs. Thorn, of Troy; McLean, of the Marshall Infirmary; Whitbeck, of West Troy; and Willard, of this city. I am positive that the method will withstand the most searching tests, and that it challenges comparison with the results of the most complex machinery of splints and bandages.

I have now treated over forty fractures of the femur and tibia, and in no instance have I seen over half an inch shortening (and that was the result of inattention), while in the larger majority there was no shortening at all (this, of course, does not include inter-capsular fractures, where there is always more or less deformity), nor were there any of these that resulted in a non-union. The only case of non-union of the femur that has occurred in this city, to my knowledge, was that of a boy of about eighteen years, of good habits and enjoying good health. By some accident he broke the humerus and femur. The former was treated with the ordinary splint, and recovered in a reasonable period, while the latter was fastened to the bed by the perineal belt and kept upon extension for some days. After this (the surgeon not having full confidence in simple extension), thinking to make the treatment doubly sure, made use of a Liston splint in addition. Thus while "trying to serve two masters" he failed in effecting union of the limb, and, though nearly two years have elapsed, it still remains ununited.

In fractures of the tibia I have seen no patients suffering from non-union, where extension was applied. But I have had three that failed to unite for three to five months, and they united only by bandaging and splints, and allowing the patient to go about and use his limb moderately, thereby creating some excited action. Of the humerus, radius, and ulna, I have seen no cases of non-union occurring in this city.

In my opinion, one of the prolific sources of non-union is the action of the muscles (spasmodic or otherwise) in causing the overlapping of the ends of the bone. I do not agree with the suggestion lately advanced, that non-union of the humerus might be due to a separation of its broken fragments. Is it true that the bone separates after hanging some time? I answer no! Instead of separating, it overlaps, and extension is absolutely requisite in order that it may be placed in apposition. The biceps and triceps are too powerful to relax in that way, particularly when under the influence of excited and inflammatory action. Overlapping of the bone has been suggested as a cause of non-union. Let us see a little what takes place when a bone is broken. 1st. You have the muscles gored and irritated; and the result is contraction of the muscles to their fullest extent. 2d. More or less overlapping of the bone. 3d. Infiltration of blood in the tissues. 4th. Muscles inflamed and hardened. This is the first stage. Now if this condition is left alone, ossific matter is thrown out, and union takes place, but with a shortened bone. If, on the other hand, you bandage and splint this limb, the parts are compressed; absorption goes on, and with it the ossific deposit is either prevented from forming, or is slowly taken up; the muscles are agglutinated to the surrounding tissues; and union is thereby needlessly impeded or wholly prevented, making the process of restoration exceedingly tedious. This also constitutes another one of the causes of non-union in healthy subjects. In my experience extension without splints has never resulted in non-union, notwithstanding over one hundred cases of fractures of the various long bones had been treated by that method, while out of only twenty or thirty cases treated by splints I have seen temporary non-union result in three instances.

In fractures of the inferior extremities, the patient, of necessity, is obliged to keep his bed, and hence there is less demand for comely appliances than in cases of fracture of the arm or forearm. In fracture of the femur, I use simply extension and counter-extension without splints, and in the leg I sometimes do the same. At other times I effect extension and counter-extension through the medium of a delicate splint, and an equally delicate foot piece fastened to the foot by means of strips of adhesive plaster, while the counter-extension is made from the knee by adhesive plaster looped about the limb below the joint. Then, by means of a strong cord passed through this loop, and thence through a hole in the side splint some distance above the knee, the requisite extension can easily be made to any

desired degree. If, after full extension is effected, it should appear that the limb is not sufficiently steady at the seat of the fracture, the application of strips of plaster around the limb and splint, at intervals of three or four inches, will accomplish all the indications. If the fracture of the leg happens to be near the knee-joint, I am in the habit of using the perineal belt, made large, full, and easy, as in fracture of the thigh.

In compound fractures of the tibia and fibula, extension is especially applicable, and I may say indispensable. And here, to forestall any objections to this method, arising from the fact of a constant tendency on the part of the superior fragment of the tibia to anterior displacement, in consequence of the powerful contractions of the gastrocnemius and soleus muscles, I remind you of four artifices, either of which, according to the preference of the surgeon, or the particular exigencies of the case, will be certainly effectual in conjunction with extension and counter-extension, in preventing this deformity. 1. The use of the double inclined plane, with a view of subduing the contractions of the strong posterior muscles. 2. The judicious application of adhesive strips around the extending splint and limb, after inflammation has subsided. 3. The insertion of stout silver wire through small holes drilled into the fragments, and bringing these into apposition by twisting. 4. Malgaigne's steel point apparatus.

In simple or compound fracture of the ankle-joint, with dislocation, there is, from the same causes, more or less disposition to displacement, and consequent shortening. Here we are obliged to pursue a different course of treatment. The injury to the bone and soft parts is, in such cases, in so close proximity to the dressing used for extension, that for some few days we can do but little good by any attempt to extend the parts to any considerable degree, while, on the contrary, much mischief may ensue from inflammation, &c. The same condition applies to the use of bandaging and splints.

Taking into account all these conditions, I am in the habit of using the same kind of apparatus as above described for compound fracture of the tibia and fibula, and also flexing the leg on the thigh by means of pillows placed in the popliteal region, thus creating a sort of double inclined plane, and effectually relaxing the gastrocnemius and soleus muscles, which is an essential element in this form of displacement.

The fractures of the superior extremities are subject to the same laws, and hence require the application of the same principles. But, owing to the fact that the patient is not confined to the bed, the extension and counter-extension are necessarily made through the medium of a splint, while, in the lower extremities, the *bed* is the splint, the foot of the bedstead the point of extension, and the headpiece the counter-extending point.

In fracture of the humerus through any portion of the shaft, simple extension can be made by having a splint extending three inches below the elbow and the same distance above the shoulder. The elbow is secured to the lower part of the strip of board by means of adhesive plaster passed through a fenestrum, while to its upper extremity it has fastened the extremities of an axillary belt. We are thus enabled to obtain full extension and counter-extension with comparative ease and comfort to the patient, the muscles making the only true splints. The arm is kept in a sling, and if the surgeon feels any uneasiness as to the disposition of the bone, he can place a strip of adhesive plaster loosely at short intervals about the arm and splint, so as to prevent any kind of lateral motion in the parts.

In the treatment of fractures through the shaft of the radius, or radius and ulna, I use a simple splint situated on the posterior part of the forearm, fastened at the bend of the flexed arm by adhesive plaster, and the other end to the wrist by the same method, so that you get extension of the muscles to their normal condition, and also by this means approximate the ends of the bones. But inasmuch as the

line of extension is not direct, and the bone is disposed to bow forwards, a few strips of adhesive plaster applied loosely around the arm and splint, at intervals of two or three inches, will keep the line of the bones correct.

Colles' fracture, which consists in fracture of the radius near the carpus, and dislocation of the ulna, presents one of the most troublesome forms of fracture that the surgeon is called upon to treat. This last appliance has in my hands been very successful in the treatment of this accident, though I am obliged to use a compress in the concavity of the wrist in order to give the ulna sufficient posterior prominence.

I see by a reference to the journals, that a splint devised by Dr. Geo. F. Shrady, of New York, is applied with great success in the treatment of this form of fracture, thereby obviating the so-called "silver-fork" deformity. Although the principle of extension and counter-extension by Dr. Shrady's plan is similar to that which I recommend, and the peculiar flexed and adducted position in which he places the hand is sufficient to maintain the fractured ends in apposition, I would, however, say, in relation to the splint, that in the first place it is not always at hand; 2d, its results can be no better than those obtained by the simple method of treatment by a shingle, piece of cigar-box, or any other piece of thin board by which to keep up the extension and counter-extension. I have now treated seven cases with the best possible results by my method, and they will bear comparison with those treated by any other. In fact, they are as perfect as they were before the accident. The fractures managed thus are nearly painless; and none of them have required redressing during three weeks of treatment, except an occasional addition of a new adhesive strip to perpetuate the extension. There is so little inconvenience about the limb that it can be examined without disturbing the dressings, while there is no swelling from tight bandaging, and the application of warm or cold water does not disarrange the dressings.

The most important forms of fractures are those situated near, and involving the elbow-joint, either of the bones of the forearm or arm. In this position, extension by direct means would be inadmissible for several reasons; the least important one being the awkward position of the arm for comfort to the patient. The plan I propose is simple, the apparatus easy of manufacture, while the extension and counter-extension is effected by simply flexing the forearm at right angles with the arm, and maintaining it in this position—thus effecting all the required conditions for a perfect apposition. The instrument is made by taking two pieces of thin board, one-quarter inch thick, fastened at the bend of the elbow by a hinge two inches wide, the lower portion extending from the elbow to the ends of the fingers, or even two inches below; the short portion extending from the elbow to the shoulder, terminating in a crutch for counter-extension; or the same end can be attained by fastening the upper end of the splint to the arm by means of adhesive plaster with the arm in an extended position. The lower end of the splint is fixed to the hand and fingers with adhesive plaster, the other to the arm by the same means, or to the axilla by a crutch. Now, flex the forearm upon the arm, and you will produce from one to two inches of extension, depending upon the diameter of the arm. This form of dressing is especially applicable to fracture of the ulna and dislocation of the humeral portion of the radius, fracture of the humerus through the olecranon and coronoid processes, and where the fragment is displaced with the ulna. The complication of displacement of the head of the radius, or even fracture of this bone, will not alter this mode of procedure.

In treatment of fractured clavicle through any portion of it, or in fracture of the coracoid process of the scapula, the common treatment has always been to draw the shoulders backwards, and thereby apply this principle to its fullest extent without any appliances of adjustable splints, and who ever failed to obtain union of the clavicle? The plan I have adopted with success, and particularly in children, is

to overlap their clothes in the back and pin them firmly in that position. I have found a strong waistcoat closed in front answer a very good purpose for the adult, pinned or laced up behind, thereby effecting all the requisite ends without the annoyance of wearing all mechanical appliances made and applied *secundum artem*. In this way patients go about with all their clothes in position, as if nothing serious had happened. If a portion of the bone should become prominent, I am in the habit of using strips of adhesive plaster drawn tightly over the projecting fragment, and thereby keeping it in its proper place.

Reports of Hospitals.

UNIVERSITY MEDICAL COLLEGE.

PROF. JOHN T. METCALFE'S CLINIC.

TWO CASES OF ANGINA PECTORIS, WITH VALVULAR DISEASE OF THE HEART.

CASE I.—Sarah Madden, æt. 50, Irish, married, a large, stout, well developed, and healthy looking woman. There was not the slightest appearance of disease discoverable by mere inspection. She had descended from a healthy parentage, though both father and mother were dead. She, with the exception of an attack of typhus, had been healthy. She had passed the change of life one year previously. During the whole life, the menstrual flow had been very regular but quite profuse. The commencement of her present illness dates seven years back. It consisted of a severe pain in the epigastrium, extending up into the throat and down through the left arm to the wrist. This, in the beginning, had never been severe enough to prevent her working, until within the last two weeks. Her trouble had sensibly increased since the change of life. Within two weeks, in addition to this constant pain, she had suffered from a sense of choking, loss of breath, and impending death. These attacks were severe but paroxysmal, there being intermissions of a half hour more or less, as exercise was taken. This was the exciting cause. In all other respects she was perfectly well. The appetite was good, digestion normal, bowels regular. There was no head trouble, urinary disease, or cough.

Physical signs.—Respiration twenty-five per minute; pulse even, full, large, and strong, one hundred and four per minute. There was visible arterial pulsation. There was a distinct thrill perceptible in the præcordium. Also an abnormal impulse of the heart. Dulness commencing with the third rib; extent indeterminate from the thickness of the mamma. At the base of the heart there was a double, coarse rough murmur, transmitted along the principal arteries.

Diagnosis.—Permanent patency of the aortic valves and hypertrophy of the heart, producing angina pectoris.

Enough has been told us, without physical examination, to give us the hint. She has angina pectoris. The pain in the epigastrium, extending up into the throat and down the left arm, together with this sense of choking and impending death, is sufficient evidence of this. Angina pectoris is attendant upon almost every variety of heart disease, hypertrophy, valvular disease, and fatty degeneration. In this case we find by physical signs that there is permanent patency of the aortic valves with hypertrophy of the heart. These lesions are quite sufficient to explain the angina. You remember what I have told you as to the pathology of the valves. The opening into the aorta is constricted and the valves are broken down, so that the current of blood, in going through the artery, is impeded, and is not prevented from regurgitating. This disease is confined almost entirely to males. Recollect this case as one of long standing, and yet that there had been no dropsy. The reason for this is, that she has hypertrophy

of the heart. This is almost the only case in our clinic where cardiac diseases of such long standing had not caused dropsy. The prognosis is unfavorable. The course of the disease is probably short.

Treatment.—She must avoid all excitement and exercise, anything which may accelerate the heart's action. For this pain a belladonna plaster would be very comforting. Aside from this give her general treatment.

CASE II.—Moses Bulgion, æt. 52, a single man, born in Ireland. Patient's general health had been uninterruptedly good. Beyond suffering from chronic, wandering, rheumatic pains for fifteen years, he is perfectly well. His present illness commenced one week before Christmas. His only symptoms, according to his own account of himself, were, loss of appetite and pain in the chest. This pain was peculiar, being located immediately beneath the centre of the sternum; constant, but not at all times very severe. Sometimes it was aggravated into paroxysms. These paroxysms usually came on either during sleep, or as he was going to sleep. He had been in bed more or less every day since he was taken; had been treated by mustard plasters and blisters, and had taken enemata for constipation. He comes for advice with reference to the pain, which is his principal complaint. Besides the pain in the chest, he refers to a pain in his stomach after eating. His food felt like a weight within him. His bowels were constipated. He had no cough, no dyspnoea; no emaciation.

Physical Examination.—The patient's chest was well formed, the resonance over both lungs was excellent. There was no increase of præcordial dulness. The apex of the heart was in its normal position. At the base of the heart there was heard a murmur, double, very faint with the first sound, and heard distinctly with the second. This was heard less clearly at the centre of the heart, but clearly along the blood-vessels.

Diagnosis.—Angina pectoris and disease of the aortic valves.

Remarks.—Let us first make out a *rational* diagnosis, if possible; let us seek the causes which may produce this pain. We may have pericarditis, endocarditis possibly, angina pectoris, and lastly aneurism, producing this pain of which the patient complains. Pericarditis runs its course in less time than six weeks, and if this man has had it we should find either an effusion into the pericardium, or a glueing together of the opposed surfaces of pericardial sack. If this man has had Pericarditis, if he has effusion we should find increased extent of the præcordial dulness, and a muffling of the heart sounds, from the layer of fluid interposed between the heart and the ear of the auscultator. If he had a glueing together of the opposite surfaces of the pericardium, we might find a wrinkling of the abdominal walls, coming and going with the beating of the heart, the reflex layer of the pericardium being attached to the diaphragm, and now firmly fixed to the heart, would explain the reason for this. Aneurism of the arch of the aorta might, by pressure upon the nerves of this region, cause much pain, but with this we should expect some affection of the larynx, and should have circumscribed dulness, marking the position of the tumor. Endocarditis or valvular disease exists here. The physical signs reveal it, and it has probably existed longer than since Christmas, though it did not give rise to this agonizing pain, which is a distinct thing. You have here a murmur with both sounds of the heart, but the first is so indistinct that we will disregard it. As the murmurs are heard along the vessels going away from the heart, we know the disease must be located in the aortic, and not mitral valve. Besides, we very rarely have a murmur with the second sound of the heart, which is connected with the mitral valve. Dr. Walshe, who has perhaps seen more chest disease than any other living man, says he has never met this form of disease. Dr. Latham who, perhaps, is second to Dr. Walshe, says the same. The best and most experienced auscultators in this city say that they have never seen more than one or two cases of it. This pain is what we call angina pectoris, which

is a very unmeaning word, and it is applied to many different things. Some consider it to be a neuralgia of the heart, others a muscular rheumatism. Others still think it a disease which accompanies ossification of the coronary arteries. I consider it to be heart pain. Dr. Walshe says that it may exist with any form of cardiac disease. From his history of chronic rheumatic pains, and especially from the physical signs, we recognise this to be a case of endocarditis—valvular disease of the heart as it is usually termed. The condition of things is simply this: the aortic valves are not perfect so as to prevent regurgitation of blood from the aorta back into the ventricles. It of course distends this cavity. It distends the auricle also, and often the pulmonary veins and lungs, producing the most urgent dyspnoea. This symptom is wanting here, probably on account of the integrity of the mitral valve. From this distension of the heart's cavities, and contraction of the heart upon its contents, we have this most agonizing pain. But, after all, may not gastric disturbance cause this trouble? You know that disease of either heart or stomach will affect the other organ. There is no tenderness in the epigastrium here, and all his indigestion may be explained by the cardiac trouble. There is nothing peculiar in this case. The disease is of long standing, and shows no disposition to go away. It will probably last for life, and carry him off at last.

Treatment.—This must be entirely palliative. He has been well treated by counter irritation. You can see that during the paroxysms caused by the stagnation of blood in the heart, if the patient could bear it, the abstraction of a small quantity of blood would relieve him. As it is, we can prescribe nothing better than counter-irritation and narcotic applications. A belladonna or stramonium plaster, as in the other case, placed over the præcordium would be very good. This will quiet restlessness and soothe the pain. Our treatment must be purely palliative. We cannot cure organic disease of the heart.

American Medical Times.

SATURDAY, MARCH 2, 1861.

SCURVY IN THE ARMY.

Two thousand eight hundred and three cases of Scurvy were reported as occurring in the little army of the United States, for five years, ending on the 31st of December, 1859.

Two thousand eight hundred and three cases in five years in an army of an average strength of less than 14,000 men!!! Can such things be? Were this statement based on common rumor, or newspaper correspondence, we might receive it with incredulity. But if the reader will refer to the *Medical Statistics of the United States Army*, recently published, he will find, on page 324, the figures which substantiate this assertion. This information comes to us, therefore, with the full endorsement of an official report, and is to be treated as an established fact.

To find some fit data wherewith to institute comparisons regarding the appearance of scurvy among other bodies of men, not soldiers, we have the privilege of referring to a letter from W. N. BELCHER, M.D., Physician to the State Prison at Sing Sing, New York, containing information as to the frequency of scurvy among the convicts of that Institution. It appears, that in an approximate estimate of an average force of 1000 convicts, there have occurred

fewer than fifty cases of scurvy during the last five years! Can we contemplate this difference and be satisfied with the astounding preponderance of such cases in our army? This preponderance—even admitting the occasional re-entrance of the same case for treatment, which not unfrequently occurs—is greater than it would seem at first. No man is allowed to be enlisted in the army of the United States whose health, constitution, and powers of endurance are in the least degree doubtful. None but *picked* men are enlisted, and these are not assigned to companies until they have gone through the ordeal of three physical examinations, by different sets of medical officers. The greater number of these men serve but for five years, when, being discharged, their places are filled with fresh, healthy recruits. The convicts at Sing Sing, on the contrary, are composed of men of all ages, and of every corporeal condition. The broken-down drunkard, the aged, the infirm, and those suffering from all the evils of vice, are there gathered together. The fact that the prisoner's sanitary condition is below *par*, is no bar to his admission; the simple test of the convict's fitness for the place being his guilt.

It is not our purpose to enter upon the history and treatment of scurvy. In several *minor* particulars medical men disagree as to its *exciting* causes among troops. Some believe that excessive guard duty, exposure to wet, etc., are the leading *immediate* causes of its appearance; others, that added to the above, depression of spirits, home sickness, and want of amusement, are important excitants. It matters little what are the *excitants* (nearly all of which, by the way, exist in an exaggerated form in our prisons), the predisposing cause remains the same.

During the late mutiny in India the British press was exercised to find out the real cause of the rebellion. Some attributed it to the "greased cartridges," which the Sepoys were to use in defiance of their religious prejudices. Others spoke of a variety of sources of active irritation, to which they gave full weight. But it was apparent to those not specially interested in this controversy, that the people must have been ripe for rebellion, and the troops for mutiny, long before the greased cartridges were thought of, and that the real great cause of the Indian mutiny was simply the bitter *hatred* existing in the minds of the natives towards the English—hatred hitherto slumbering and quiet, but not the less intense; produced in any way you will, yet covered by the theory of the *antagonism of distinct races, when brought together on the same soil*. Had this antagonism and hatred not existed, the greased cartridge would not have been the spark which caused the explosion. Thus it is with scurvy. Professional men attempt to assign causes for its appearance, which are merely exciting, forgetting that great *sine qua non*, THE ABSENCE OF FRESH VEGETABLE FOOD IN SUFFICIENT QUANTITY. This is sufficiently well known to all classes of men, whether in the medical profession or not, to do away with *ignorance* as an excuse. The man who ignores the necessity of supplying bodies of men with the needed amount of fresh vegetables, or in default of these, with ample supplies of desiccated vegetables, and other well known anti-scorbutics, is unfit to command an army. In scurvy, perhaps more than in any other disease, is the old adage true, that "an ounce of prevention is worth a pound of cure." But the late *economical* Secretary of War, John B. Floyd,

appears to have thought differently. If any one doubts this, let him read the following General Order, issued by the Adjutant General:—

GENERAL ORDERS, }
No. 3.

WAR DEPARTMENT,
ADJUTANT GENERAL'S OFFICE,
Washington, March 4, 1859.

The following regulations have been received from the War Department, and are published for the information and government of all concerned:

1st. Purchases by the Subsistence Department of "Pickles," "Sour Krout," "Dried Fruits," and "Fresh Vegetables," unless for the sick in hospital, are prohibited for the future.

2d. Two "Issues" per week of "Desiccated Vegetables" may be made in lieu of "Beans" or "Rice."

3d. When "Fresh Beef" can be procured at 6½ cents, or less, per pound, net weight, it will be issued to the troops five times per week.

BY ORDER OF THE SECRETARY OF WAR.

Of the disastrous effect of this General order we are furnished with an instance, by a medical friend, who, in 1859, acted as Medical officer to a large military command, moving from Fort Leavenworth to Salt Lake. For 900 miles the troops were provided with no vegetable anti-scorbutic, except a few insipid desiccated vegetables. Scurvy began to show itself. Application was made for pickles to be issued to the men. The reply was, that the commissary had no pickles! "Buy them of the traders and sutlers," was the surgeon's reply. The commissary answered, and as a military man, very properly, "Doctor, General Order No. 3 forbids me to purchase them." The men were thus deprived of proper food, and scurvy was not slow in manifesting itself. During the term of years the statistics of which we have just quoted, the cost of maintaining our army amounted to fully seventy-five millions of dollars. Compared to the various rates paid for the transportation of everything in the remote wilds of the West, the *economy* evinced by General Order No. 3, of March 4, 1859, was pitiful, scandalous, shameful, and inhuman; and seems as if intended for effect. We leave it to political journals to discuss "flour contracts," &c., but in the name of humanity we protest, as medical men, against such orders as that we copy.

The "penny wise, pound foolish" manner in which our army matters are conducted is frequently the result of circumstances inherent in all such organizations. Yet it is "never too late to mend." Report upon report has been written by the medical officers, recommending sanitary improvements for the prevention of scurvy, and to improve the hygiene of the army. In most instances it was like "talking to the wind." Anything for the real good of the army has been ignored; but much encouragement has been given to the patentees of new inventions, who have political friends or long pockets.

Nothing in this communication is meant to reflect upon the character of the *officers* of the army. From Lieut.-General Scott down, they are generally gentlemen, who, to their credit be it spoken, deplore the evils herein assailed. But to the charge of irresponsible Secretaries of War, much of the disgrace of this state of things must be placed.

The late Secretary, with the soft words, "I have the honor to transmit," laid before Congress this official report, charged with facts the most discreditable to his department. May we hope that long will be the time and far distant

the day when convicts shall be better treated than soldiers, and another Secretary of War will have the "honor to transmit" a report acknowledging the occurrence of two thousand eight hundred and three cases of scurvy.

THE WEEK.

It is gratifying to notice the growing interest felt in Sanitary Reform in this country. Much of this is due to the impulse given by the meetings of the National Sanitary Association. The Sanitary Association of New York was the first local organization, and it has already done a great work for our city. True, our Health Department has not been improved, but a public sentiment has at length been created, which now gives unmistakable evidence of its power and its purpose to sweep away the corrupt and inefficient department which has for years disgraced New York, and reconstruct a thoroughly scientific sanitary system. The Association numbers its members by hundreds, many of whom are prominent citizens. The citizens of Brooklyn soon after organized a Sanitary Association, and recently we notice that a similar society has been instituted in Boston, under the Presidency of JOHN WARE, M.D. Finally, a Sanitary Society is about to be organized in Philadelphia. These societies should exist in every town throughout the entire country, in order to the study of the means of increasing the salubrity of towns, the investigation of the causes of epidemic and endemic diseases, the improvement of the sanitary condition of schools, churches, and dwellings, and the diffusion of knowledge relating to the social and physical well-being of the people.

A STRONG effort is being made in this city, to secure the appointment of competent and efficient officers to administer the Drug Law. Committees have been appointed by the various medical societies and the College of Pharmacy, which have held joint meetings for the purpose of uniting their efforts in influencing the incoming administration to compel the candidates for these positions to undergo a thorough scrutiny as to their qualifications.

ANOTHER instance of the death of a physician by the communication of the diphtheritic virus from the patient is reported. The French Journals state that Dr. GENDRON, of Tours, while attending a woman suffering from croup, had his face covered with the expectorated matter, while the patient was undergoing the operation of tracheotomy. He was very fearful of this attack which promptly occurred, and of which he died. It will be remembered that the lamented Dr. CHARLES FRICK, of Baltimore, lost his life in a similar manner, being attacked with diphtheria soon after performing tracheotomy on a patient dying of that disease.

NEW YORK OPHTHALMIC HOSPITAL.—The Annual Commencement of this institution was held on Monday evening in the Fourteenth-street Medical College, in the presence of a large number of students and medical men. Peter Cooper occupied the chair. Dr. Stephenson, the President of the Faculty, made a few preliminary remarks in regard to the organization and success of the institution, and concluded by awarding testimonials to the following gentlemen, who composed the graduating class. James Cray, George W. Edwards, Cornelius F. Miesse, B. A. Watson, A. J. Harris, G. T. H. Scott, W. L. Wheeler, Max Goldbacher, F. G. Stanley, Henry Hill, S. Souders, S. W. Briggs, J. L. Kiernan, Charles Hait, John A. Conings, Samuel Ayres, E. P. Miller, Henry S. Plympton, Wm. O. Meagher, T. H. Still-

well, George R. Wells, J. W. Robie, B. J. Dewey, A. D. Smith, C. R. Chase, B. O. Reynolds, C. H. Baker, Calhoun Hill, and Robert McKun. Dr. J. P. Garrish, one of the Professors of the Hospital, delivered an address to the students, and the Valedictory was spoken by Dr. James F. Kiernan of the graduating class.

Obituary.

DR. FRANCIS.

JOHN WAKEFIELD FRANCIS was born in the city of New York, on the 17th of November, 1789. His paternal ancestry was German, his father having emigrated to this country soon after the Revolution. His mother was of Swiss parentage, being at the time of her marriage a resident of Philadelphia. We first hear of the subject of our biography in active life as an apprentice to a printer, Mr. George Long; and though he pursued the business but for a limited period, he was ever after popular with the typographical profession, and took a conspicuous part at their festivals. The thirst for knowledge which characterized his subsequent life, now awakened in him, and he sought greater advantages for learning. We soon after find him pursuing the preliminary studies of an academical course, his preceptors being the Rev. George Strebeck and the Rev. John Conroy, of Trinity College, Dublin. He entered an advanced class of Columbia College in 1807, and was graduated A.B. in 1809, at the age of twenty. He had already selected the profession of medicine, and commenced his studies under Dr. Hosack. He was graduated M.D. in 1811 by the College of Physicians and Surgeons; this was the first class of graduates from that school, eight in number, one of whom was the late Dr. T. Romeyn Beck. Soon after his graduation, Dr. Francis formed a partnership with his preceptor, which continued until 1820. In 1813, at the age of twenty-four, he was appointed lecturer on the Institutes of Medicine and Materia Medica in the College of Physicians and Surgeons. It was about this period that he visited Europe for the purpose of self-improvement, where he formed the acquaintance of many of the prominent persons of that period, viz. Cuvier, Gall, Dupuytren, Playfair, Bell, Abernethy, and Sir Walter Scott. He also became acquainted with Dr. Rees, the author of the *Encyclopadia*. To this he contributed several articles.

Columbia College and the College of Physicians and Surgeons were soon after united, and in the new faculty we find the name of Dr. Francis associated with the Chair of Materia Medica. This position he held until 1816, when the Chair of Materia Medica was united to that of Chemistry, and he was transferred to that of the Institutes of Medicine. In 1817, the Chair of Medical Jurisprudence, previously filled by Dr. JAMES S. STRINGHAM, was united to that of the Institutes, and its duties discharged by Dr. Francis, until 1820, when he succeeded to the Chair of Obstetrics and Diseases of Women and Children, which he filled until 1826, when the entire faculty resigned. A new organization was immediately effected, called the Rutgers Medical College, which was continued four years, and in which Dr. Francis held the Chair of Obstetrics and Forensic Medicine. With the discontinuance of this school, his career as a public teacher was brought to a close.

It will be seen that for eighteen years of the most active period of his life, Dr. Francis was engaged in the praiseworthy effort of laying the foundations of our metropolitan schools. Of his success as a medical teacher, we have the most ample assurance in the rapid growth of the schools with which he was connected, and the important chairs which were successively committed to his charge. That he brought to the elucidation of his subject a mind well stored with facts, gathered by patient research, and close

analytical investigation, an apt faculty for illustration, and a concise and elegant expression, no one familiar with him in after life can doubt. Among his colleagues we notice the honored and historic names of HOSACK, MITCHELL, OSBORN, POST, HAMERSLY, STRINGHAM, MOTT, GODMAN, and BUSHE. All have passed away except MOTT, who, though four years the senior of Dr. Francis, still lives to enjoy a world-wide reputation, and to witness the ever-widening influence of those institutions whose broad foundations he with Dr. Francis assisted to establish.

As an author Dr. Francis has always ranked deservedly high. As early as 1810, while yet a student, he issued the prospectus of the *American Medical and Philosophical Register*, in connexion with Dr. Hosack, his preceptor. This was published quarterly, and continued four years. In 1822, he established, in connexion with Drs. Beck and Dyckman, the *New York Medical and Physical Journal*, with which he remained connected three years. These publications contain many valuable papers from his pen. Of his professional papers those which have attracted most attention are, "Use of Mercury" (an inaugural thesis, 8vo. 1811); "Cases of Morbid Anatomy" (4to. 1814); "Febrile Contagion" (8vo. 1816); "Letter on Cholera Asphyxia" (8vo. 1832); "Observations on the Mineral Waters of Avon" (1834). Most of his later writings were limited to biography and early local history. Among his very latest productions we may notice two biographical sketches, contributed to the recent work on Medical Biography by Prof. Gross.

In reviewing the career of Dr. Francis as a medical man, we can but pronounce his life one of eminent usefulness in his profession. We have already alluded to the fact that as a teacher and writer he has done much to establish our medical schools. But various are the methods by which his influence was brought to bear upon the growth and development of the medical institutions of our city during the last half century. There were few that he was not at some period associated with, and he always brought to the discharge of his duties great zeal and practical knowledge. He was one of the original founders of the Academy of Medicine, and was its first President. His addresses before this body are among its best productions. He was early identified with Bellevue Hospital, and as the President of its Medical Board, has done much to place that institution in its present position. As a practical teacher he early recognised the importance of clinical instruction as an essential part of a complete course of education; and, in his annual addresses to the students, he forcibly and eloquently set forth the necessity of careful bedside study, and pointed out the advantages which were there afforded to the clinical student. He was an early and devoted friend of the Woman's Hospital, and but a few days before his death was elected President of the Board of Officers of the State Inebriate Asylum. Thus in every work of charity and usefulness where his services were needed, we find Dr. Francis an earnest and zealous laborer, and often fulfilling engagements at a great sacrifice of personal comfort and even health.

In literature Dr. Francis has long been known as a genial writer of biography, and an accurate delineator of the early historical characters of New York. This department of literature, always very attractive to him, in the latter part of his life engaged much of his attention. The result is seen in his "Old New York," first presented to the public as an address before the Historical Society, but subsequently enlarged to a volume of nearly four hundred pages. In this work the author exhibits to great advantage his peculiar traits, viz. an accurate memory, a nice perception of character, a genuine appreciation of goodness in individuals, and a generous charitableness towards faults. In literary circles Dr. Francis has long enjoyed an unbounded popularity. This was due not so much to his writings as his familiarity with the personal history of the principal characters in every department of literature, his thorough appreciation of their individual peculiarities, and

the exhaustless fund of anecdote which was thus at his command, and which, with racy wit and humor, never failed to entertain. At public literary or professional festivals he was a necessary guest, and was always exceedingly happy in his addresses.

As a citizen Dr. Francis occupied an honorable position. Though his labors have been much connected with institutions of charity, and hence are not of a kind to attract public attention, yet he was familiar with our civic history, and was intimately acquainted with the most eminent citizens. Among his friends he could mention Clinton, John Pintard, Egbert Benson, Robert Fulton, Cadwalader Colden, and many others not less distinguished among the leading citizens half a century since; and in later times he was on terms of familiarity with many of the more prominent statesmen of the country.

Dr. Francis represented an era in our professional and social history long past. No scholar studied more assiduously, and was more familiar with the progress of the medical sciences, and the sciences in general, art, literature, and all that pertains to the development of man's social and intellectual nature. Still his early teachings and associations had produced convictions which he was slow to yield, and to which he recurred with gradually increasing interest; though perfectly familiar with the current medical theories he never allowed them to control, and seldom to influence his previously settled opinions. The modern expectant and stimulating plan of treatment found little favor with him. In his social habits, his dress, and his manners, he assimilated the past rather than the present. His physique was an admirable type of the old Knickerbocker, which was improved to the best advantage by his low-crowned and broad-rimmed hat, flowing white hair, gold spectacles, white cravat, and gold-headed cane.

Dr. Francis lived to a ripe age. Honors clustered thickly around him, sufficient to gratify the highest ambition. He received the degree of LL.D. from Columbia College, and was an honorary member of many foreign Societies. Most of our local Societies numbered him as a member, and over many he was at some period the presiding officer. His latter years, we regret to add, were clouded by severe domestic affliction, in the loss of a son to whom he was tenderly attached, and upon whom he leaned for support in his advancing years.

In the death of Dr. Francis the medical profession has lost an earnest and long-tried friend, and a noble example of the humane and liberalizing spirit of the medical sciences; literature one of its most genial devotees; and society a large-hearted philanthropist.

Reviews.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.
Vol. XIII. Philadelphia. 1860.

(Continued from page 134.)

THE Section on Practical Medicine and Obstetrics furnishes three papers. The first is *On the Influence of Alcoholic Drinks on the Development and Progress of Pulmonary Tuberculosis*, by N. S. DAVIS, M.D., of Illinois. Prof. Davis seems to have given considerable attention to this question, which has now been before the medical world for several years. He has recorded 210 cases, which he divides into three classes: 1. The habitual drinker; 2. The occasional drinker; 3. The temperate. There were 68 of the first class, 91 of the second, and 51 of the third. Their nativity was as follows: Ireland, 85; United States, 60; Norway and Sweden, 25; Germany, 20; England, Scotland, and Wales, 15. The histories of ten cases are given, as examples of the entire collection. The conclusion of the author is, "That neither the action of alcoholic stimulants on the functions of the human body, nor the actual results of ex-

perience, furnish any evidence that these stimulants are capable of either preventing or retarding the development of tubercular phthisis."

The second report is *On the Education of Imbecile and Idiotic Children*, by H. P. AYRES, M.D., Fort Wayne, Indiana. This is an elaborately written paper, being for the most part a compilation from the writings of those devoted to the study of idiocy and its relief. It embraces interesting statistics of this class of persons, and the theories and discussions of authors. Although it is far too extended, and the material is not arranged with much skill, yet if it attract the attention of a single physician so as to lead him to the resolution to use his efforts for the improvement of this unfortunate class, we shall not regret the space it occupies in the Transactions.

The third and last report is *On Inebriate Asylums*, by C. McDERMONT, M.D., of Dayton, Ohio. This short paper is an earnest appeal in behalf of the Inebriate Asylum, as an essential means in the cure of the drunkard. The true remedy for this evil, he contends, "consists in separating the drunkard from his intoxicating draught." This may be done by, 1, prohibiting the manufacture of ardent spirits; 2, by placing the inebriate in an asylum where he shall be delivered from the temptation to drink. The first method he considers impracticable in the present state of society; the latter is, therefore, to be regarded as the measure to be advocated and adopted. We agree with the author in his advocacy of the Inebriate Asylum as the last hope of the drunkard. The report refers in terms of proper commendation to the enterprise of Dr. Turner, at Binghampton, New York, and looks hopefully forward to the period when Ohio shall follow the suggestion of its governor, and establish a similar institution.

The reports by standing committees, viz. *On Medical Education*, by D. MEREDITH REESE, M.D., LL.D., *On Medical Literature*, by D. F. WRIGHT, M.D., of Nashville, we shall pass without further notice.

The concluding report is *On American Medical Necrology*, by CHRISTOPHER C. COX, A.M., M.D., of Maryland. This report is a new but most interesting feature in the Transactions. The author has shown great assiduity in the collection of the materials for his report, and is entitled to great credit. He complains, and justly too, that his circulars have not been responded to promptly, and concludes by advising the continuance of these necrological records. We heartily second this suggestion.

Progress of Medical Science.

PHYSIOLOGY AND PATHOLOGY.

By W. H. THOMSON, M.D.

1. *Production of Sugar with relation to the Resorption of Fat and to Animal Heat*.—At the meeting of the French Academy, Nov. 9th, 1860, a paper on this subject was read by M. Colin, in which he maintains, 1st. That the resorption or combustion of fat, the production of sugar, and the maintenance of animal heat, at its normal standard, are processes intimately connected with each other, and mutually interdependent. 2d. That abstinence cannot be borne long by lean animals, for a very rapid lowering of temperature takes place in them, coincident with an almost complete disappearance of sugar in the liver, the blood, the lymph, and other fluids, which normally contain it. 3d. That in fat, or moderately fat, individuals, the tolerance of abstinence, other things being equal, is exactly proportioned to the quantity of fatty material stored in the tissues; so long as the animal has fat, life is maintained, the sugar is renewed in the liver and the nutritive fluids, and the system's temperature is not notably lowered. 4th. During hibernation the production of sugar preserves an activity

parallel with the resorption of fat. 5th. In animals deprived of nourishment, the liver experiences the most notable changes, extending towards complete atrophy, the cells losing their fat, which is replaced by sugar.—(*Gaz. des Hôpitaux*, Nov. 13th, 1860.)

We do not think that fat is only fuel, but, on the contrary, that it is as necessary and as much a primary element in nutrition as albumen itself; for it is to be found in all growing cells, or parts, as in the embryo, which are undergoing rapid development. The results from experiments of depriving animals of the oleaginous elements of food are evidence of this, while the beneficial effects of oils in the chief diseases of nutrition seem to be owing to their acting as restoratives by supplying an element lacking in the process of tissue-making. Lewes goes so far as to suggest that the main office of the spermatozoa is the requisite supply they afford to the ova of fat to start them in their course of evolutions! These diverse facts seem to indicate that fat exists in the economy under two widely different conditions, with very important distinctions between them in properties, uses, and destiny, the first belonging to the ascending scale of elements, as it enters largely into the composition of the most elaborate and highest products—*e. g.* nerve vesicle or spermatozoon; while the second is a retrograde body, or even a degeneration from albumen (Addison), and capable of nothing better than combustion. One of the conclusions from this view would be, that according as an artificial oil approaches in its characters the one or the other fat in the system, will it be of use in the treatment of the diseases of nutrition.

2. *Secretion of Milk from the Axilla*.—Instances of the secretion of milk by various surfaces of the body, such as from the umbilicus, etc., have been made a good deal of by some physiologists fond of generalizations, as evidence of original identity in type of all secreting organs. We cannot but entertain some question, however, as to the real nature of the supposed milk in the out-of-the-way localities named, except in those cases where the lacteal fluid has made its inconvenient appearance in the armpit; for the true connexion here is conceivable, and made out, we think, in the facts of the following case from the *Dub. Med. Press*, Nov. 7, 1860, related by Dr. C. J. Hare. Mrs. M. S—, æt. 37, presented herself with a small swelling under the right arm, which for some time past had given out a white, milky-looking discharge, presenting exactly the same appearance as the milk from the breasts. She had been confined of her seventh child, had suckled all her children, and at no period of her former lactations, or at any other time, had she observed a swelling in the axilla. It was on the night of her confinement that she first observed it, and, when first noticed, she described it as being of the size of half a walnut. It did not increase much in bulk, but became harder, and caused some pain as low down as the elbow. It was not until the end of a month that it discharged a little fluid, which was then of a decidedly milky appearance; and as she was engaged in her domestic avocations, enough generally escaped to moisten the linen every day since that, and sometimes even more. On examining the axilla, I found an irregularly ovoid prominence about as large as a filbert, with a moderately defined outline, somewhat blended with the loose cellular tissue of the axilla. Its substance was firm, but not hard or resisting, as an enlarged gland in that situation usually is; for by moderate pressure its shape could be readily altered, though it instantly resumed its original form on the pressure being removed. The skin over the swelling presented no redness or any difference from the rest of the axilla; there was no trace of a nipple; and so exceedingly minute was the aperture through which the fluid escaped, that it was impossible to say at what point it made its appearance, until the surface had been wiped quite dry, and a fresh portion had been forced out by pressure. The fluid had all the usual appearance of normal human breast-milk, being a thin, bluish-white liquid, rather sticky when rubbed between the fingers. A small quantity collected in a test tube was

found, after a few hours, to form on its surface a layer of cream. A drop of the fluid being, as soon as collected, placed under the microscope, it was found to be rich in the variously-sized oil globules of milk: nothing resembling a pus globule was detected. I exhibited a specimen of the milk to the Pathological Society, so late as Sept. 14th, when the condition of affairs was apparently exactly the same as in May, and microscopical examination gave exactly the same results as before. The only question which presents itself is as to the source of the secretion—whether the milk was secreted by a portion of mammary gland situated in the axilla, or was conveyed to that part in some unusual manner from the breast. It is possible to conceive that a communication might have become established between a portion of the breast and some of the lymphatics, and thus a little milk might be conveyed to a lymphatic gland in the axilla; that the gland enlarging had given rise to the swelling felt, and ultimately allowed the milk to escape as described. But all the evidence is in favor of the small mass in the axilla being really a portion of true mammary substance situated there. The physical characters presented by the swelling, the absence of hardness, the elasticity, etc., were not those of an enlarged lymphatic gland; nor is it probable that such a gland would have continued so absolutely stationary for so many months, or the skin above it so free from redness, so mobile, and in such a healthy condition; and it is to be remarked that the increased flow from the axilla took place at the same time that milk was being *drawn* from the breasts."

A case is also recorded by Dr. J. Harris, in the *Savannah Jour. of Med.*, Oct., 1860, of a negro woman, who, after the birth of her third and fourth children, experienced large swellings in the axilla, which continued without interference during lactation. The same swellings occurred after the birth of her sixth child, when they were tapped, and a pint of fluid evacuated, which, under the microscope, showed milk globules, very characteristic colostrum corpuscles, and no pus globules; and chemical examination proved the existence of all the constituents of colostrum and milk. As the mammary gland is conglomerate, with its parts united by cellular tissue, it is readily conceivable that one of the divisions, through some original defect in the "constitution," has seceded into the axilla, and set up separate sovereignty, rather than that such cases are proofs of secretion being essentially the same process wherever it occurs, so that the stomach can easily become a urinary bladder, and the umbilicus flow with milk and butter.

tion, and in accordance with the wish of the Trustees we assumed the personal superintendence of it. The main object of the Infirmary is to provide for ladies, who are engaged in the study of medicine, opportunities for seeing and assisting in practice. It proposes to accomplish this in a twofold way: 1st, By furnishing a large amount of poor practice, both outdoor and indoor, in which its students take part; 2d, By presenting such guarantees to the Profession of intelligence and earnestness on the part of its students, that they may in time gain admittance to other public medical charities of our city. The Infirmary is, therefore, designed as a medical centre for women; its patients come entirely from the poor; it receives medical students; is under the direction of well known citizens. It has a board of eminent consulting physicians, and will in time, as it grows in wealth and gains the confidence of the profession, obtain for women what they do not at present enjoy—the opportunity of acquiring a good medical education.

It has necessarily been of slow growth; for, as we commenced practice in New York nine years ago, not only without a friend, but without a single acquaintance, in the whole city, the formation of even a small institution has been a very heavy burden to us. It is, however, fast gaining friends, as will be seen from the Report, and we hope in time to be relieved from the great responsibility which has hitherto rested upon us.

Should any members of the Profession feel any interest in this institution, they are cordially invited to visit it, and obtain its published reports, or any information they may desire.

In relation to the "New Question in Medical Ethics," it may be interesting to the Profession here to know that the question was settled in England two years ago, when the "General Council of Medical Education and Registration of the United Kingdom" received the testimonials of a lady physician, and enrolled her name in the Medical Register for 1859.

E. & E. BLACKWELL.

126 SECOND AVENUE, Feb. 25th, 1861.

THE CONICAL TREPHINE.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In the number of the MEDICAL TIMES of February 5, to which I desire briefly to allude, I notice an article in reference to the Trephine which I originated, and introduced to the consideration of the profession. In presenting this instrument, in April last, to the surgical section of the Academy of Medicine of this city, I distinctly stated, that when I devised it, my impressions were that the cone was an original idea of my own, but on examination of the Atlas of Blasius I learned that a trephine had been in use, of a conical shape, with longitudinal peripheral teeth. I found after testing it, that that instrument possessed very little advantage over the old one now in use, inasmuch as it continues to cut after dividing the cranial walls, and consequently must wound the membranes and brain substance. After satisfying myself of the pre-existence of the instrument described by Blasius, I of course abandoned all intention of claiming any originality in the conical form of my trephine; and only maintained its superiority in the spiral arrangement of its peripheral teeth. In doing this I did not desire to detract from any antecedent claims to originality in the invention of a similar instrument. I thought, from my limited observation, that I had discovered a new principle of mechanics, which being brought to bear upon the trephine would give it superior advantages to any I had seen. Acting upon this principle, I completed the one in question. Not satisfied with my own preconceived partiality, but desiring the opinions of those in whom I had confidence in reference to its merits, I not only consulted various intelligent surgical gentlemen, but personally introduced it to the surgical section of the Academy of Medi-

Correspondence.

NEW YORK INFIRMARY FOR WOMEN AND CHILDREN.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—Having read with some surprise the leader entitled "A New Question in Ethics," in your last week's issue, we should be much obliged if you would publish the following statement of the history and object of the institution referred to, as we desire that they should be fully understood by the Profession.

THE NEW YORK INFIRMARY FOR WOMEN AND CHILDREN was commenced in 1853 as a dispensary, near Tompkins Square, with a regular charter and organization. In 1857 it grew into a small hospital, and was placed in the hands of suitable persons, we retaining such medical oversight as a daily visit would allow. Finding, however, that this arrangement was unsatisfactory, that the institution required more of our influence than the cares of a large and increasing private practice would allow us to give while residing at a distance, it was removed in 1860 to its present loca-

cine. The members were competent to judge of its efficiency, and whether it had any claims to originality in its design. They were familiar with surgery and surgical instruments of this country and Europe; many of them had studied in the schools of France and Germany, yet no mention is made by any of them in reference to a trephine, which I am informed by your correspondents is "generally used there." Strange that none of these intelligent medical gentlemen should have met with it, and still more strange that in all their researches in the history of the profession they should have overlooked an instrument which we might infer was well known to surgery.

Not alone to the profession in this city has this trephine been presented; but through the various medical and surgical journals it has been brought to the consideration of thousands of the profession in Europe and this country, yet among those who are presumed to be well versed in medical history, no one has as yet suggested any satisfactory disproof of my claims to originality. The *New York Journal of Medicine*, May, 1860, contains an article in reference to the various tests to which my trephine had been submitted, and the very satisfactory results therefrom as to its efficiency. The editor accompanies the article with a diagram of the trephine, and remarks, "that it was highly commended by the surgeons present, and will, we believe, prove a valuable and most important invention." The *Nashville Journal of Medicine and Surgery*, Oct. 1860, contains a similar article, and endorsing the views of the *New York Journal*. *Braithwaite's Retrospect of Practical Medicine and Surgery*, uniform American edition, Jan. 1861, contains a similar notice of the instrument in question, which is copied from the *British Medical Journal* of June 16, 1860. In addition to the above, we have a similar article which appeared in your *Journal* of January 5, 1861, in connexion with a successful operation performed at Bellevue Hospital by Dr. Sayre, and the courteous endorsement by him of the merits of this trephine. I can therefore logically conclude that the surgical profession have not been ignorant of my claims to this invention, as the evidences I have cited are ample as to publicity being given to it. What are the evidences upon which we are to rely as to the previous introduction and use by surgeons of any instrument professing to be novel in its design? It is not the verbal assertion of any one; unsustained by concurrent written testimony; but the surgical plates of those instruments corresponding with the surgical description accompanying them. This coincidence is indispensable to demonstrate the accuracy of the diagram, otherwise there is no determining as to whether it might not be an artistic error. I have consulted all the medical authorities to which I have had access, and have found none to impair the validity of my claims to this invention. I have examined the *Synopsis Medicinæ*, by Salmon, London ed. 1860, in which a very large number of surgical instruments are delineated, among them the conical trephine to which I alluded, but it has the longitudinal, and not the spiral arrangement of its peripheral teeth. I find the same principle obtains in the publications by Blasius, Heister, and in the treatise of Ambrose Paré, so early as 1579. These are all recognised authorities of high character; they all coincide in their description of a conical trephine, but it is the same as the one in the *Synopsis Medicinæ*, and does not meet the principle involved in that designed by me.

Your correspondents refer us to an "antique case of instruments in their possession, which contain trephines similar to ours, and of which they apprise the profession they expect to keep a supply." I am far from reflecting any imputations upon these gentlemen, or misinterpreting the disinterestedness of their intentions, but to the prejudiced their concluding paragraph might admit of unfavorable construction.

I, however, do not desire to render myself annoying to an indulgent profession in reference to this matter. I have expended much thought and labor upon my instrument, and repeatedly failed before I accomplished my pur-

pose. The idea, at least, was an original one with me—having never seen any instrument similar in character to it, or which would combine its advantages, though such a one may have existed among the "antiquities" of the profession. I only desire to maintain the position awarded me by our confrères, of having made some humble contribution to surgical science.

G. A. D. GALT, M.D.

NEW YORK, Feb. 23, 1861.

INHALATION OF NITRATE OF SILVER.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—I notice in your number of February 2, an article upon the *Inhalation of Nitrate of Silver*, by Dr. FETTER. I fully agree with the Doctor that if nitrate of silver must pass below the epiglottis, that his method, or something similar, is far preferable to the use of the probang. But what particular advantage, other than that of economy, his method can have over the caustic pulverizer, as previously used, I am at a loss to see. Both, in my estimation, have their disadvantages, and perhaps dangers. I must confess that I would not be willing to make a "strong inhalation or inspiration" upon a heap of powdered nitrate of silver, placed in a "small glass tube," for a reason which is by no means fancied. Having been a sufferer, I have tried to do it. I found that unless I was extremely cautious and gentle in my inspiration, the mass was pretty sure to go in a body, and either lodge somewhere on the back of the pharynx, about the glottis, or along the larynx, and give rise to very unpleasant sensations. I therefore abandoned this process, as I had previously done the probang, and after a number of subsequent plans, finally hit upon the following, which I found in all respects safe and most efficient, and which I sent to the *Chicago Medical Journal*, July 1858, from which I quote.

"I pulverize the nitrate of silver in a moderately heated wedgewood mortar, to an impalpable powder; I then triturate it with sugar of milk, according to the strength which I desire—generally mixing them in the proportion of one part of the caustic to two of sugar of milk. This powder I put into a glass-stoppered jar of the pint or quart size, being careful to have the jar thoroughly dry by heating it. I place in the patient's mouth a glass or tin tube, one inch in diameter, and some eight or ten inches in length. Giving the jar a good shake and pulling out the stopper, I tell the patient to plunge the tube into the mouth of the jar and inhale. The cloud of powder which was seen floating in the jar, passes into and sprinkles the air-passages thoroughly. From one to three inhalations at a time is sufficient, and about twice or thrice a week. The powder can be kept in good condition for about a month, the main trouble being the heating the jar every time you wish to use it, in order to drive off whatever atmospheric moisture may have collected. In all instances where it is desirable to go below the epiglottis with this remedy, I know of no way more efficacious than this, and being simple it is within the reach of all."

W. H. STUDLY, M.D.

YORKVILLE, Feb., 1861.

ATTEMPT AT SUICIDE, BY SWALLOWING CHLOROFORM.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—JULIA WILSON, aged eighteen, attempted suicide on Tuesday evening, December 4, 1860, by swallowing one ounce of chloroform. She sent the servant girl to the nearest apothecary, with directions to procure one ounce of the material. No questions were asked by the dispenser, and a vial marked "chloroform," was handed by him to the purchaser. On returning home, the girl gave the vial to Miss W., who closed the parlor door, and then swallowed the contents of the bottle. She walked the length of the parlor twice, placed the empty phial on the mantel-piece, and then fell

heavily on the floor. The noise occasioned by the fall soon brought several members of the family to her assistance. I was sent for immediately, and arrived at the house about twenty minutes after the drug had been taken. She was at this time lying on the sofa, complaining of a burning sensation at the stomach. The pulse was feeble and quick, the countenance pallid, and the extremities cold. She refused to take any medicine, but, with the assistance of those around her, I succeeded in forcing down the throat one ounce of powdered ipecac, mixed with a little warm water. In a few minutes she commenced vomiting, the odor of chloroform being distinctly detected in the materials ejected from the stomach. She, however, became gradually comatose, with stertorous breathing, pulse feeble and rapid, pupils contracted and insensible to light. The finger rubbed over the conjunctiva gave no evidence of sensibility. It was now forty minutes from the time that the poison had been taken. Mustard applications were freely applied to the extremities, cold water dashed on the face, and flagellation kept up at short intervals. She remained in this condition about half an hour, when consciousness became gradually restored. As this took place, she passed through the different stages usually observed in persons who take chloroform by inhalation. At 11 o'clock P.M., just three hours from the time the anæsthetic was taken, she was in her usual health, having entirely recovered from its effects. Taylor, in his Medical Jurisprudence, relates a case where one drachm taken into the stomach caused death. Another, where four ounces were taken, and the man recovered in five days. In the case of Miss W., the quantity taken, it will be recollected, was one ounce. She supposed that in order to cause death, the chloroform must be taken into the stomach, like laudanum.

T. C. FINNELL, M.D.

132 W. Houston Street.

A CASE OF MONSTROSITY.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—On the 25th of December last I attended a lady near this place in her second confinement, who gave birth to an acephalous fetus. There was also a bifid spine; and nearly the whole extent of the back was denuded of integument. The lower limbs were perfectly formed. The fingers were of unusual length, and were clenched so firmly that they could not be opened without breaking them. There was a sac, the size of a hen's egg, lying externally between the shoulders, which, upon opening, I found contained a substance resembling brain matter. The woman was at about the eighth month of her pregnancy. The monster showed no symptoms of life after birth. There was nothing remarkable in the history of the gestation, so far as I could learn, unless we might mention slight flooding at the third month.

F. N. SMITH, M.D.

LA HARPE ILL., Jan. 30, 1861.

Medical News.

DEATHS.

JONES—In New York city, February 12, JULIA C. STUART, wife of E. Lee Jones, M.D., in the 22d year of her age.

GRISWOLD—In New York city, February 26, Stephen, only son of Dr. STEPHEN and CORNELIA R. GRISWOLD, in the 4th year of his age.

APPOINTMENT.

NEW YORK HOSPITAL.—Dr. C. E. HACKLEY has been appointed Resident Physician in place of Dr. R. F. Weir, resigned.

The Parisian journals announce the recent deaths of the following physicians, viz. Dr. Tiedmann, aged 87, at

Munich; Dr. Germa, aged 86, at Paris; and Dr. Van Vaerenbergh, aged 84, at Antwerp.

A London physician recently received a fee of £5,000.

ARMY AND NAVAL INTELLIGENCE.—Assistant Surgeon C. G. Hollenbush has been assigned to duty at Fort Pickens, Fla. Surgeon D. C. De Leon has resigned; resignation to take effect Feb. 19, 1861. Dr. Woodworth, surgeon to the Niagara, being invalided, returns to the United States by the way of Egypt.

BOARD OF NAVAL SURGEONS.—OFFICIAL.—A Board of Surgeons will convene at the Naval Asylum, Philadelphia, on Friday, March 1st, 1861, for the examination of Assistant Surgeons for promotion, and candidates for admission into the Medical Corps of the Navy. The following Surgeons compose the Board:—James M. Greene, M.D., President; J. M. Foltz, M.D., and C. H. Wheelwright, M.D., members; Passed Assistant-Surgeon Jno. F. Taylor, M.D., Recorder. Assistant-Surgeon Stewart Kennedy, and William Johnson, Jr., have been ordered, and Assistant-Surgeons A. M. Vedder, P. S. Wales, and A. C. Gorgas have received permission to appear for examination for promotion. The three last named have not been in the Navy the required time to entitle them to an examination, but as the exigencies of the service may require them at sea, when the next Board meets, they have been permitted to appear before this Board. Should they pass, they will not receive their rank as Passed Assistant-Surgeons, or additional pay, until the expiration of five years from the date of their entry into the service. Candidates for admission into the Corps must not be under twenty-one or over twenty-five years of age, and cannot appear before the Board without permission of the Secretary of the Navy, which can be obtained by furnishing the Department with respectable testimonials as to the moral and physical qualifications of the applicant.

THE SURGEON-GENERAL'S DEPARTMENT.—We understand that numerous tenders of service in the surgical staff of the State have been received from New York, Rhode Island, Pennsylvania, Indiana, Arkansas, Maryland, Virginia, Alabama, Georgia, Florida, and North Carolina. Some of the medical gentlemen have volunteered for the position of Hospital Stewards, rather than not serve South Carolina.—*Columbia (S.C.) Banner.*

GAS AND OIL.—The cheapness of gas, as compared with other modes of procuring artificial light, may be seen from the following table:—It must be borne in mind that this table is made for the English market, showing, as it does, at what a low rate gas can be manufactured, and still pay fair dividends. According to this table, gas is afforded at the low sum of one dollar per thousand cubic feet in this city, and one dollar and twenty-five cents in the suburbs. Gas from cannel coal being much better than that made from ordinary coal, containing, as it does, more body, a higher rate is charged for the gas. The price received for this quality of gas is one dollar and fifty cents, or six English shillings. The machinery for the manufacturing gas in England is far superior to any in this country, and they also make a saving of nearly twenty per cent. on their method of washing or purifying the gas. This table has been computed with great care, merely altering the prices of gas to the rate as afforded at the present time:—

COMPARATIVE COST OF LIGHT, FROM CANDLES, LAMPS, AND GAS.

		Quantity and price of candles and oil.			Quantities and prices of gas for an equal light.		
		s.	d.	C. ft.	At 5s. per 1,000	At 4s. per 1,000	
Tallow candles, (dip.)	lb.	1	0	6	21	0	1 1/2 0 1
" " (moulds)	"	1	0	8	21	0	1 1/2 0 1
Composition,	"	1	1	0	25	0	1 1/2 0 1 1/2
Wax candles,	"	1	2	4	25	0	1 1/2 0 1 1/2
Solar and pale seal oil,	gall.	1	4	0	175	0	10 1/2 0 8 1/2
Sperm oil,	"	1	8	0	217	1	1 0 10 1/2

This table shows that gas is only about one-sixth the price of tallow, or one-twentieth that of wax candles, and one-eighth that of sperm oil.—*Merchants' Magazine.*

Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE VI.

At yesterday's lecture, gentlemen, we studied the functions of the organ which receives the first two important branches of the pneumogastric, viz. the larynx, which is supplied with the superior and inferior laryngeal nerves; the former being distributed to its mucous membrane and the latter to its muscles. We find that when the glottis is exposed in the living animal it presents a series of very remarkable and important movements, in connexion with those of respiration as performed by the chest; the glottis opening at the moment of inspiration and closing at the moment of expiration. Now, with regard to the mechanism of these movements, I have only to remind you of the insertion of the posterior crico-arytenoid muscles. These muscles originate from the median line upon the posterior surface of the cricoid cartilage. Their fibres, passing upwards and outwards, are inserted into the external angle of the arytenoid cartilages, drawing these cartilages backwards, and rotating them outwards in such a way that their anterior extremities are separated from each other, together with the vocal chords to which they are attached. You noticed these movements while examining the larynx as exposed yesterday; and we also found, at that time, that the glottis has another function in addition, viz. the formation of the voice. You observed that whenever the animal began to make a vocal sound, the position of the vocal chords was altered. In ordinary inspiration the glottis opens actively; while the movement in expiration is a passive one. But as soon as the animal is about to make a vocal sound, the closure of the glottis in expiration, instead of being passive, becomes active; all the laryngeal muscles contracting vigorously, rendering the vocal chords tense, and approximating them to each other. The air is then driven forcibly through this narrow aperture, producing vibration in the vocal chords and in the column of air passing between them. The larynx has therefore a double office to perform, one part connected with respiration, the other with the formation of the voice. These two functions are both muscular in their character, being presided over by two different sets of muscles. Those which dilate the opening of the glottis are the posterior crico-arytenoid muscles, while all the others have the effect of narrowing the aperture. Now, these muscles are animated by the inferior or recurrent laryngeal branch of the pneumogastric. The consequence of dividing this nerve, therefore, is twofold; first, the paralysis of the voice; secondly, that of the movements of the glottis in respiration. Now, you saw yesterday that when the inferior laryngeal nerves were successively divided, the movements of the corresponding sides of the glottis were arrested at the same time. If both sides of the glottis are therefore paralysed, by a division of both nerves, then the appearance of the glottis during the movements of inspiration and expiration is reversed. Instead of opening at inspiration and closing at expiration, the vocal chords then become simple narrow flexible folds of elastic tissue, incapable of any active movement. They are accordingly forced together by the pressure of the inspired air, and, by falling together like a double valve, they actually become an obstacle to the entrance of air into the trachea.

Now, the extent to which this difficulty of inspiration is produced, after division or injury of the inferior laryngeal nerves, differs in different species of animals, and even in

the same species at different ages. If you take, for example, an adult dog and adult cat, and do the same operation on both, the cat will suffer very much more than the dog; for this reason, that the glottis in the former animal is narrower and more easily occluded, when its power of active dilatation is destroyed.

In young animals of the same species, the opening of the glottis is always comparatively narrow, and the vocal chords and arytenoid cartilages more flaccid than in the adult. A very curious circumstance happened once to Legallois, a French experimenter, who was operating upon a pup, only a few days old, in order to carry out some experiment upon the neck. During the course of the operation, in order to put a stop to the cries of the animal, he determined to divide the inferior laryngeal nerves. He did so, and to his surprise the animal almost instantly died of suffocation.

Now, the effect of dividing the inferior laryngeals may be illustrated in this pup, which is about twelve days old. At this age the glottis has already begun to assume a larger size and a less degree of flaccidity; consequently the effect of the operation will not be so marked as in a pup only two or three days old. Yet I think you will be able to see the much greater influence of this operation upon the pup than on the adult dog. You will notice that the division of the nerves affects first the voice and afterwards the respiration. I will now raise one of the inferior laryngeal nerves upon the ligature, and divide it; and you observe already that the character of the voice is altered. The blade of the scissors is now under the remaining nerve, and the moment I divide it you will find that the voice ceases altogether. You notice also that there is now a peculiar sucking sound produced in inspiration, caused by the physical obstacle to the introduction of the air, by the paralysed and flaccid vocal chords.

Now, this difficulty of respiration, in these cases, is very much increased by disturbing or exciting the animal. For so long as the movement of inspiration is a slow and gradual one, the impediment to the entrance of air may not be very great; but if the movement be sudden and forcible, it may cause such an amount of obstruction as to produce death in the course of half an hour, or even less. It is evident that the movements of respiration in this instance are quite different from what they were before. The animal, instead of breathing quietly and at his ease, is now entirely occupied in the business of respiration; and he finds it difficult to accomplish this, though exerting all his force to fill the chest with air. He is very much in the condition of a child suffering from membranous croup, in which the glottis is obstructed by an inflammatory exudation, and the entrance of the air consequently interfered with.

Now, after death from division of the pneumogastric nerves on both sides of the neck, it has been found that the lungs have usually suffered a very remarkable alteration. They become engorged, and present an appearance somewhat similar to that of hepatization. It is, in fact, a peculiar kind of hepatization. We must not, however, suppose that this condition is produced directly by the division of the pneumogastric nerves. Experiment has shown that this is not the case; but that the alteration is due to a kind of suffocation, in the production of which paralysis of the larynx takes a very prominent part. In the adult animal this suffocation is a slow one. Not only are the movements of respiration less frequent than before the division of the nerves, but they are also less complete; because the air can no longer find its usual free access into the pulmonary cavity. Here is the animal in which the pneumogastric nerves were divided yesterday. Since that time he has remained crouched in a corner of the room, indisposed to move, but at the same time not manifesting any remarkable distress. He has shown no signs of pain. The principal effect of the operation has been a diminution in the frequency of the respiratory movements. Any movement of the animal, or any excitement whatever, will, of course, produce an increased frequency in the movements of

respiration, as in the natural condition; but when he is allowed to remain quiet, the respiratory movements are reduced to about ten per minute, which is a diminution in frequency of at least one-half. The respiratory movements will probably continue to grow slower until they are reduced to ten, eight, seven, six, five, or even four per minute, and yet the animal may still retain his intelligence and his senses. This diminution of the respiratory movements, combined with the imperfect admission of air at each inspiration, tends to interfere greatly with the arterialization of the blood; and the consequence of this is a peculiar engorgement of the lungs. The longer this condition lasts, the greater the amount of engorgement becomes; and after a time the animal grows stupid and insensible, and at last dies comatose. All this time no particular distress is manifested, death taking place partly in consequence of the direct action of the pneumogastrics upon the lungs, and partly in consequence of the paralysis of the larynx and partial closure of the orifice of the glottis.

We have now, gentlemen, studied the action of the larynx in regard to the two great functions of respiration and the voice. We have seen, so far as its functions are concerned, that in this respect it depends upon the action of the laryngeal muscles. But there is one other function with which this organ is intimately connected, and that is the function of deglutition; for you must remember that by the opening of the glottis the respiratory passages communicate directly with the pharynx, as the air passes down through the larynx into the trachea by nearly the same route that the food passes through the pharynx into the œsophagus. Now, it is not only necessary, for the preservation of life, that the larynx should admit the air into the trachea, but also that it should prevent the entrance of food or any other foreign body into the same passage; for, as we all know, if the smallest particle of food comes in contact with the inner surface of the larynx, a convulsive cough is produced by which the offending substance is immediately expelled. Now, how is this cough excited? It is a reflex action; and as the intrinsic movements of the glottis, which we have so far examined, depend upon the action of the inferior laryngeal nerves, so is the sensibility of the larynx dependent upon the superior laryngeals. This sensibility of the glottis is a peculiar one. It possesses but little general sensation: that is, the presence of a foreign body in contact with the mucous membrane of the larynx give us no definite information in regard to its character, its shape, or consistency. All that we feel is, that the mucous membrane is irritated; that the presence of the foreign body is unpleasant; and so a violent expulsive effort is the consequence, produced by reflex action operating upon the muscles of expiration. Now, what is the mechanism of this protection of the larynx against the introduction of foreign substances during deglutition? We are too much in the habit of attributing this protection to the presence of the epiglottis. A little reflection will show that in the greater number of vertebrate animals, this organ is entirely absent; it exists only in the quadrupeds, and in the human species; while fish, birds, and reptiles have no epiglottis whatever. You remember that in the pigeon which you saw yesterday there was only a simple slit at the base of the tongue to represent the glottis, yet we all know that the birds can eat and drink without any more difficulty than the quadrupeds. This being true, we must account for the protection of the larynx in deglutition by some other means. The result of experiment shows that in quadrupeds the function of the epiglottis is, in reality, not to protect the larynx; for if the epiglottis be removed, the animal can still swallow as before without any danger from suffocation. I have here the epiglottis of a dog which I removed yesterday. The animal from whom it was cut out, you see here; and by allowing him to feed, we can see whether the operation has interfered in any way with the process of deglutition. You see that he swallows both solid and liquid food without any difficulty whatever. Now, in order to see whether the whole of the epiglottis has

been taken away in this instance, I will kill the animal and remove the parts. I have now, you observe, taken out *entire* the upper part of the trachea, the glottis, and the pharynx. By opening the pharynx from behind, we shall be able to see the condition of the parts at the orifice of the glottis, and how much, if any, of the epiglottis remains. You observe that, in fact, its removal has been complete; that there is really no epiglottis; and yet there was no difficulty in swallowing, and no entrance of the food into the orifice of the trachea. Now, therefore, if the epiglottis be not the physical obstacle which nature has provided for the defence of this exceedingly sensitive portion of the larynx, how is it that the object is really accomplished?

The mechanism of the protection of the glottis in swallowing is a very different one from that generally ascribed to it. It must be premised, in the first place, that there are several functions presided over by the nervous system, which are *incompatible with each other*. That is to say, that one of them cannot be performed at the same time with the other. We know, for example, that there are some very simple voluntary movements which we cannot make at the same time. A familiar instance of this is the reversed rotation of the two hands. We cannot rotate the right hand in one direction, and the left in another at the same moment. The nervous action which would produce this rotation on one side is incompatible with that which is required for the opposite. The same thing is true with regard to the processes of inspiration and deglutition. These two acts are incompatible with each other. You cannot inspire and swallow at the same time. Now in the act of inspiration, as we know, the glottis is naturally opened; therefore, in point of fact, were we to inspire and swallow at the same time, the opening of the glottis being situated just at the inferior surface of the pharynx, the food would necessarily find its way into the larynx. But the nervous influences are such, that the instant we are about to swallow we stop respiration. The glottis, therefore, does not open, and the danger is diminished. The mechanism of deglutition, however, is so curiously arranged that it really accomplishes something more; for while, by the cessation of respiration, the opening of the glottis is prevented, by the action of the constrictor muscles of the pharynx it is completely closed.

Here, for example, you have the tongue, larynx, upper part of the trachea, pharynx, and œsophagus of a dog. The pharynx has not been opened, and you can readily see the manner in which its constrictor muscles are arranged. Their fibres commence above and behind, on the median line, and, running downwards and forwards terminate by insertion upon the sides of the thyroid cartilage. I will open the pharynx from behind, and you will then see exactly the operation of its inferior and middle constrictors. The opening of the glottis is now narrow, because the vocal chords are not separated by the action of the posterior crico-arytenoid muscles. The glottis is precisely in this condition when we attempt to swallow, and when the food is passing from the back part of the mouth to the upper part of the pharynx. When it reaches thus far, the reflex action excited by its contact produces a contraction of the constrictors of the pharynx, and immediately shuts up the orifice of the glottis. It is impossible, you see, for me to draw together the constrictors of the pharynx without drawing together at the same time the arytenoid cartilages and the vocal chords which are attached to them. So that the process of deglutition itself, as it carries the food from above downwards, shuts up the chink of the glottis and prevents the food falling into the trachea.

There is, also, another mechanism, which takes part in the function of swallowing. You will find that at the moment of deglutition the larynx is drawn forcibly upwards, and the base of the tongue pressed backwards. The consequence is, that the base of the tongue is folded over upon the anterior part of the glottis, thus covering it more completely, and excluding all the foreign substances.

A familiarity with the mechanism of deglutition will

explain certain occurrences which sometimes produce much trouble, and require for their relief surgical interference. We know that occasionally, notwithstanding this mechanism, foreign bodies do accidentally find entrance into the larynx, both in adults and in children. But if we examine the mode in which this happens, we shall find that it is always produced by a sudden inspiration taking place during the act of swallowing. In the adult it generally happens in consequence of the disturbance occasioned by some unexpected occurrence. The patient is seated at the table, and while deglutition is going on, something occurs which forcibly and suddenly attracts his attention. Deglutition is arrested, and on the instant, the glottis being opened by a full inspiration, the food passes directly into the cavity of the larynx. Now it is impossible for us to do this voluntarily. It must always take place in consequence of some sudden and irresistible nervous influence, sufficient to destroy the harmony which naturally exists between the two functions of respiration and deglutition.

Again, a child is playing with a bean or a marble, and is affected by some sudden pain or fright. He tries to scream and express his feelings in the usual way. In order to do this he makes a quick inspiration, when the foreign body immediately slips into the glottis. As soon, however, as it is fairly inside the trachea, it cannot get out again; for in the act of coughing the irritating body is driven up against the vocal chords, which, in consequence of the irritation, close forcibly and prevent its exit. In this case the surgeon is reduced to the necessity of making an opening in the trachea below the larynx, through which the foreign body can escape.

A very curious instance of this accident happened some years ago to the celebrated Mr. Brunel, who was at that time engaged in the construction of the Thames tunnel. By some accident a sovereign happened to get into the trachea, where it occasioned a great deal of distress and anxiety, together with much difficulty in breathing. Mr. Brunel was urged on several occasions to have the trachea opened; but he decided to wait for a time before resorting to the operation, in order to see whether the foreign body might not be got rid of in some other way. But the coin, being quite heavy, naturally remained most of the time at the bifurcation of the trachea, and could only be momentarily dislodged during the act of coughing. A contrivance, however, was finally resorted to, which was successful. The patient was put in the reversed position, with his head downwards. This position, naturally a very uncomfortable one, was rendered more so by the fact that the sovereign fell downwards and rested upon the inferior surface of the vocal chords, producing spasmodic closure of the glottis. But after a time, the intense desire to breathe overcame the direct irritation of the vocal chords, a movement of inspiration took place, the glottis opened and the coin dropped out. Thus this patient was relieved from his difficulty by the very same means by which the foreign body had gained entrance.

But you may very naturally ask—If the epiglottis be of no use in protecting the orifice of the glottis, what is its function? In all probability the epiglottis has some action in modifying the character and tone of the voice. You have already seen that a vocal sound is produced by the vibration of the column of air passing through the narrow chink bordered by the tense and elastic vocal chords. It is modified, however, by very many concomitant conditions; by the length and tension of the vocal chords; by the size of the orifice of the glottis; by the dryness or moisture of the mucous membrane; by the state of contraction or relaxation of the muscles outside of it; and lastly, by the length of the column of air between the glottis and the mouth. There is little doubt that the position of the epiglottis also exerts an influence at the same time. We all know how the sound of a horn may be altered by passing the hand in front of its open orifice, and thus partially closing over the mouth of the instrument through which the sound escapes. The various positions of the hand in this situation will produce

distinct variations in the character of the sound. I have no doubt that the epiglottis acts somewhat in this way, by deflecting the column of air as it emerges from the orifice of the glottis.

CLINICAL LECTURES.

DELIVERED IN THE N. O. CHARITY HOSPITAL.

BY AUSTIN FLINT, M.D.,

PROF. OF CLINICAL MEDICINE AND MEDICAL PATHOLOGY, IN THE N. O. SCHOOL OF MEDICINE.

LECTURE V.—PNEUMONIA.

AUGMENTED WEIGHT OF SOLIDIFIED LUNG IN PNEUMONIA—CIRCUMSTANCES DISTINGUISHING THIS FROM OTHER INFLAMMATIONS—TREATMENT OF THE DISEASE WHEN IT EXTENDS OVER AN ENTIRE LUNG.

GENTLEMEN:—I need not offer an apology for the subject of this lecture, although I have already treated of pneumonia fully in my didactic course at the college, and have considered, on several occasions, both in this place and in my remarks at the bedside, various points relating to the morbid anatomy, the clinical history, and the treatment of this disease. No apology is needed for recurring to this subject, for pneumonia is a disease important everywhere, but important especially to the medical practitioners of the South, in consequence of its far greater prevalence, and its prevalence in a severer form here than in the Northern States. Of the many practitioners who visit New Orleans during the winter, nearly all are interested in observations and discussions connected with pneumonia, more than in those pertaining to any other disease, and I am often asked to multiply my lectures on this subject.

Moreover, the subject of pneumonia is of interest, because, by a kind of tacit agreement, this disease has come to be considered as a type of inflammatory affections generally; and the principles of therapeutics which are applied to this disease are considered as applicable to acute inflammation wherever situated. To a certain extent, this is undoubtedly correct; yet pneumonia presents some striking points of difference when compared with other inflammations. The inflammation is seated in a structure which is not a serous membrane, but which lacks the usual anatomical characters of a mucous structure; I refer, of course, to the membrane lining the air vesicles and the ultimate bronchial tubes. The inflammatory process here involves a solid exudation, which is probably derived from the blood coming from the right side of the heart, before becoming oxygenated, or, at least, at the instant of oxygenation. This peculiarity cannot possibly obtain in any other situation than in the air-vesicles and ultimate bronchial tubes. The exudation here never becomes organized, if it does elsewhere, as is generally supposed it may when it takes place on a serous surface. It is rarely converted into pus in this situation, if this conversion be possible elsewhere, as is generally supposed. The exudation does not remain as the tuberculous exudation does, in the same situation, but it is reabsorbed, often with great rapidity. Adhesion and obliteration of the cavities do not follow as in the case of serous membranes, but after the absorption of the exudation is completed, the pulmonary structure is intact, having received no appreciable damage. These are circumstances which are interesting, to say the least, in a pathological point of view.

During the present winter I have been interested in determining the increased weight of lung solidified by pneumonia. I have on the table before me the lungs from the body of a patient who died in a ward not under my charge, but the patient was seen by me before death, and the diseased organs have been kindly placed at my disposal. Over the entire right lung were presented the physical signs of solidification prior to death, and you see that it is perfectly solid. The affected lung is dilated apparently to

the utmost limit of its expansibility, by the solidifying exudation. When I blow into the trachea with a pair of bellows, it remains motionless, while the left lung, which is free from disease and collapsed, expands readily. Separating these lungs from their connexion with the heart, and weighing them separately, I find that the solidified lung weighs *sixty-six ounces* more than its fellow! Now, the weight of the right lung, in health, is somewhat greater than that of the left lung, but here is an enormous difference. The right lung has acquired a weight above that of health amounting to nearly or quite four pounds avoirdupois! To what is this enormous increase of weight due? Not to the presence of blood, for there is less blood in the diseased than in the healthy lung. It must be due to the quantity of solidifying exudation. Nearly or quite four pounds of the solid constituents of the blood, then, were withdrawn from the circulating blood in giving rise to the solidification in this case. I have weighed the lungs in other cases with similar results, and proportionately, where, instead of an entire lung, a single lobe only was affected by inflammation.

This increase of weight of lung affected with pneumonia, is a striking fact and highly suggestive. Is the withdrawal of this amount of the solid constituents of the blood of no moment, so far as concerns the condition of the blood, the functions of the body, and the state of the vital forces? Can the blood sustain such a loss without any dangerous consequences resulting from it? We know that it is not necessarily fatal, because patients not unfrequently recover; but is not this a source of evil and danger which is to be considered in practice? Do we not find in this striking fact an explanation, in part, at least, of another fact, viz. patients with pneumonia affecting the whole of a lung do not generally die by apnea, but by asthenia? The function of the affected lung is, of course, suppressed, while the solidification continues, but the function of the other lung is amply sufficient for the continuance of life. Patients do not necessarily experience even embarrassment of respiration from the solidification of an entire lung, but the pulse is apt to become frequent and full, the powers of life fail, and death ensues from exhaustion.

The history of the case which furnished this specimen was an illustration of the statement just made. Under a moderate use of opium, together with alcoholic stimulants, the respirations did not exceed sixteen per minute. There was no lividity of the face or prolabia. The pulse, however, was frequent and small, the patient was greatly prostrated, and despite the free use of stimulants and a sustaining diet, he sank more and more, and died from exhaustion.

The augmented weight of the lung in pneumonia is suggestive in another point of view. Notwithstanding the great amount of coagulated matter withdrawn from the blood, the coagulable constituent of the blood, viz. fibrine, does not appear to be diminished, but, on the contrary, increased. If blood be drawn during the progress of pneumonia, the amount of fibrine is found to be greater than in health; in fact, in this inflammation especially is the fibrinous element in excess. Does not this go to favor the hypothesis that the fibrine in the blood is excrementitious rather than the material for nutrition? And is not the greatly augmented quantity of the fibrine to be considered as expressing the waste of the tissues in this disease? This question is not without significance in relation to the *modus operandi* of certain remedies which clinical experience shows to be highly useful in the treatment of pneumonia.

There is no lack of opportunity, gentlemen, in this hospital, to observe cases of pneumonia in which the solidification extends over an entire lung. Examples are more numerous here than at the North, as I have shown by a comparative analysis of cases recorded in this hospital and at the hospital* in Buffalo. This fact explains, in part, the greater severity of the disease here, and the larger mortality from it.

I have at this moment in my wards a patient who is just convalescing from pneumonia which has extended over the whole of the right lung, another patient who is nearly ready to be discharged, and another who is passing through the disease. Now, in these three cases the principles of treatment have been essentially the same. Many of you have observed these cases with me day after day, and have listened to the remarks which were suggested at the bedside. Let me state in a few words the principles of treatment which these cases have illustrated.

In none of these cases had the inflammation extended over the entire lung when the patient was admitted. It became thus diffused while the cases were under observation. Could this diffusion have been prevented by any plan of treatment? I am sorry not to be able to answer this question affirmatively. I have witnessed extension of the inflammation in cases in which different measures of treatment have been employed—such as bleeding, mercurialization, and the free use of antimony; and I am obliged to say I do not believe that we have adequate evidence of the effectiveness of any particular measure or measures in restraining the inflammation within the limits of a single lobe.

Blood-letting was not practised in either of these cases. But observe, gentlemen, I do not take ground against the employment of blood-letting in any case of pneumonia. I believe this to be an extreme and injudicious view; but I do believe that in the great majority of cases, even when the disease is observed from the commencement, blood-letting is not called for, either because it is contra-indicated, or the objects to be attained by it can be secured by measures less open to objections, viz. by cardiac sedatives and saline laxatives. In the cases to which I am referring, even these succedanea of blood-letting did not seem to me to be called for. The disease had existed in all some days before admission, and the solidification had extended at least over an entire lobe.

Taking into view the history, the habits of the patients, the extent of lung affected, and the symptoms, the two following objects appeared to comprehend all that could be done to give the patients the best chance of recovery:

1. To place the patients under the influence of opium sufficiently to tranquilize the system—to render it, as it were, as tolerant as possible of the local affection, and to promote sleep. The objects embraced under this head are very important. When it is recollected that the disease kills by asthenia, all that we can do to obviate disorder, fatigue, and exhaustion, will be likely to increase the probability of recovery. Hence the value of opium in this, as in many other diseases. However we may explain the *modus operandi* of this drug, clinical experience shows its great value in the treatment of pneumonia. And it is to be borne in mind that in this, as in many other diseases, the system bears, without any narcotic effect, large doses of opium. These patients took, for several successive days, from nine to twelve grains of opium per day, without the least approach to narcotism. The good effects of this remedy must have been apparent to you in the diminished frequency of the pulse and respirations, the freedom from pain, the refreshing sleep which it procured, even while the local affection was advancing. I may repeat here, that it would be no objection to the use of opium, if it diminished expectoration in this disease, which it does not. The exudation in pneumonia does not go off by expectoration, but by absorption. One of the members of the class is now recovering from a recent attack of pneumonia affecting the whole of the right lung, and the resolution has gone on with astonishing rapidity; yet, in this case, during the whole course of the disease, there has been absolutely no cough and expectoration. The expectoration which usually occurs during the resolution of pneumonia, does not consist of the exudation into the cells, but mainly of mucus from the bronchial tubes.

I have offered reasons for the utility of opium; but you will bear in mind that its applicability in the treatment of

* Vide Am. Jour. of Med. Sciences, Jan., 1861.

this disease does not rest on the plausibility of these or any other reasons which may be given with a view to explain its utility, but on the conclusions drawn from repeated observation of its effect. It occurs to me to suggest, in connexion with the remarks which have been made respecting the probable derivation of the excess of fibrine from the waste of the tissues, whether opium may not be useful by limiting this waste; and, if so, may it not tend to limit the amount of exudation, and in this way, in fact, limit the extension of the disease? I throw out this idea simply as a casual suggestion.

2. The second object was to support the system by alcoholic stimulants and concentrated nourishment. These measures constitute the sustaining course of treatment of which I have spoken often in connexion with various diseases. The patients got an ounce of brandy at intervals varying from two to six hours during the progress of the disease, after the commencement of resolution; then the quantity was gradually diminished, and it was discontinued when convalescence was fully declared. Essence of beef and milk, alternately, at short intervals, constituted the diet.

Not many years ago, these measures, during the continuance of an acute inflammation, would have been deemed extremely hazardous. The utility of the sustaining treatment in pneumonia, and many other affections, has become so familiar to me that I have ceased to regard it as possessing any novelty; but from the frequent expressions of surprise and doubt by practitioners who do me the honor to visit my wards, I am reminded that it is a novel treatment to many, and that all do not find it easy to shake off notions which have become firmly fixed. I shall not now dilate on the subject. You have had abundant opportunity to observe for yourselves in the cases of which I am now speaking, and in numerous other cases, not only the innocuousness, but the apparent efficiency of the free use of alcoholic stimulants and nutriment in certain cases of pneumonia, as well as of various acute affections. The safety and utility of these measures must, of course, rest on experience; but we need not be at a loss to understand, in some measure, why they are not only safe but useful. We have seen that in cases of pneumonia, in which an entire lung is solidified, sixty ounces of solid matter are withdrawn from the blood, and that the danger to life is from asthenia or exhaustion. Hence, it is the great object in such cases to support the powers of life, and this is to be done by alcoholic stimulants and nourishment.

There is another consideration which has an important bearing on this point in the treatment. Pneumonia, in general, does not involve destructive lesions of the lung, even when it proves fatal. The lung structure is intact. The cells are filled with exudation matter which will almost surely be absorbed if life be sufficiently prolonged. A grand object of treatment, therefore, is to prolong life until resolution begins and progresses so far that, if serious complications do not ensue, the patient is safe.

In these remarks, gentlemen, I have had reference to cases in which pneumonia extends over an entire lung. This diffusion of the disease, as you well know, renders the affection one of considerable danger, while there is very little danger if the disease be limited to a single lobe and not complicated with any other serious affection. Now, in conclusion, let me ask you, how are you to determine that the disease is extending or has extended over an entire lung? We may suspect this from the symptoms, but we cannot determine it save by the physical signs. By means of these we can note, day by day, the advancement of the local affection; we can ascertain when and where resolution begins, and follow the progress of the latter up to the restoration of the healthy condition. We cannot do this under the guidance of the symptoms alone, although the latter are of great importance as regards the prognosis and the indications for treatment. Without physical exploration of the chest, the existence of pneumonia would often be doubtful. It is not infrequently overlooked by those who trust to symptoms alone; and important complications, such

as pericarditis, could not be discovered. I should do injustice to auscultation and percussion if I omitted to avail myself of all proper occasions to endeavor to impress their importance in medical practice.

Original Communications.

PLACENTA PRÆVIA; TREATMENT BY THE CAOUTCHOUC WATER PESSARY.

BY E. J. FOUNTAIN, M. D.

DAVENPORT, IOWA.

IN view of the fact that in this form of abnormal labor about one-third of the mothers and two-thirds of the children are lost, it is eminently the duty of every practitioner of the obstetric branch of medical science to labor for the diminution of this fearful mortality, and to record every form of treatment which holds out any promise of improvement. The simplicity and safety of the treatment practised in the following case, and the success attending its application, are sufficient recommendations in its favor to warrant its further trial.

Mrs. P.—, aged 20, began suddenly to have uterine hemorrhage, Nov. 26, when seven and a half months advanced in her first pregnancy. No labor-pains or dilatation of the os. The flowing partially ceased under the influence of rest, cold-water enemata, and occasional doses of opium and acetate of lead. In this manner the hemorrhage was kept in check, though recurring to some extent every few days, for two weeks. During this time placenta prævia was suspected, but the os had not dilated sufficiently to render the diagnosis certain.

Dec. 9.—Hemorrhage suddenly recurred with great violence, attended with some pain. I now found the os sufficiently dilated to permit the entrance of a finger which came into immediate contact with a placenta. The alarming and dangerous nature of the case was now perfectly apparent. The hemorrhage was profuse, calling for immediate arrest by some other means than the operation of turning, which the rigid and undilated os would not permit. With the view of checking the hemorrhage until the time should arrive when turning might be properly resorted to, I introduced a caoutchouc bag to which was appended a stem by which it could be distended with air or water. At the extremity of this I had a small stop-cock so arranged as to be readily connected with the flexible pipe of Davidson's self-supplying rubber syringe. Dropping the supplying stem of this into a vessel of cold water, a few compressions of the elastic ball quickly filled the bag within the vagina, and at once arrested the hemorrhage. In about half an hour, or perhaps less, a moderate discharge of blood again appeared, forcing its way around the pessary. I immediately allowed the water, now quite warm, to escape without withdrawing the instrument, and quickly refilled it with cold water, when all flowing again ceased. This proceeding was continued through the day and following night, the warm water being frequently discharged and replaced by cold; and so certain was this in its effect that I left the patient several times for an hour or two to attend to other urgent calls, the husband in the meantime refilling the ball with cold water as often as any symptom of hemorrhage appeared. Occasionally, when changing the contents from warm to cold water, I would make an examination. This could be effected without even removing the instrument. When this treatment had been continued about twenty-four hours I found the os becoming well dilated and labor pains more regular. The margin of the placenta could not be reached, nor was any part of the child presenting. I now felt satisfied the time had arrived when I could safely accomplish the operation of turning, but the efficiency of the vaginal bag of water in safely conducting the case to

this period began to impress me with the belief that its continuance might obviate the necessity of turning. At all events, I reasoned, it can do no harm to try it, being ready at any moment to resort to the latter operation, for which the parts were becoming all the time more favorable. From this time the pains steadily increased, and within an hour I had the gratification of feeling a presenting vertex crowding upon one side of the placenta. After this the disposition to hemorrhage gradually ceased. As soon as the advancing vertex had partially passed between the placenta and now widely dilated margin of the open cervix, I removed the pessary permanently. The labor now progressed favorably without further hemorrhage, and the child, a female, was born living and in good condition, about thirty hours after the commencement of the above described treatment. The placenta was found loose in the vagina immediately after the delivery of the child.

In the recent and very instructive lecture on placenta prævia by T. Gaillard Thomas, M. D., the pathological character of this complication of labor and indications in methods of treatment are briefly stated with that vigor and terseness of language and philosophical reasoning which characterize all the productions of his pen with which he has favored the profession. In cases of the kind above reported, where the os is rigid and the hemorrhage profuse, he recommends a tampon of sponge saturated with the solution of the perchloride of iron, and, "Better still than a tampon, the instrument called the *colpeurynter* might be used, or in place of it a hog's bladder, tied to the end of a self-supplying syringe, introduced in a collapsed state into the vagina and then filled with water, may be employed. But remember, this is only temporizing, and that it merely prepares the way for the fulfilment of an important indication which it by no means effects itself."

It was with this view that I resorted to such a mode of treatment, fully expecting to be obliged to follow it up by the operation of turning. I soon found that it could not be depended upon as a tampon simply, but the facility with which it permitted of a constant application of cold enabled me, by its influence in connexion with the pressure, to control the hemorrhage effectually, not merely as a temporizing expedient but permanently, and with the important result of saving the child as well as mother. This does not by any means invalidate the correctness of the principles advocated by Dr. Thomas, but certainly establishes an exception to the general rule. How frequently success may attend the treatment can of course be determined only by further trial. Its great superiority to any other form of tampon is readily apparent, and it is applicable to all cases where a tampon is required. I can speak, from experience, of efficacy in cases of flooding connected with abortion. A peculiar feature of the treatment is that it readily admits of a constant application of cold in connexion with the best form of mechanical pressure. The latter alone I found to be insufficient, but in connexion with the former, every indication was fully answered; and thus my patient escaped the danger of a serious operation, and the child (which is living and doing well) is undoubtedly indebted to the same for the preservation of its life.

A FACT FOR MEDICO-LEGAL SCIENCE.

BY SAMUEL R. PERCY, M.D.,

OF NEW YORK.

A SHORT time ago I was sent for to see one of my lady patients. She had a baby about four months old. After her confinement with this baby, she was up and about the room on the eighth day, attending to her two other children, who were very sick with scarlet fever. In consequence of this attendance she had not recovered her strength, and had the symptoms of prolapsus uteri and ulceration. Upon vaginal examination I found congestion and other difficulties, which I proposed to treat; but it was consi-

dered best both by her husband and herself to postpone the treatment, as on the next week he would leave home to be absent two or three months. On the Monday following, he left, but she did not call upon me until a week from the day following. Upon examination with the speculum, I found a mass of what I supposed to be mæo-purulent matter proceeding from the os uteri. Wishing to ascertain its character, I immediately examined it with the microscope, and was surprised to find that it was semen; and that it contained living spermatozoa, and many dead ones. Communicating, in a proper way, my discovery, I questioned her as to the time of her last intercourse with her husband. It was on the Monday morning before leaving, nearly eight and a half days previous. I would stake my reputation on her honor.

Knowing that the zoosperms of the frog are frequently found living days after the animal's death, and even when it has been frozen, I can conceive no reason why human spermatozoa may not retain their vitality for some time, especially when protected by warmth, and placed in the situation where nature designed them. But to test this matter, I placed some semen in the lower part of a piece of moistened membrane (such as is frequently used) and tied it, and placed it within the vagina of a mongrel slut; upon removing it on the sixth day most of the zoosperms were possessed of vitality, though there were many dead ones.

This fact may have an important bearing in a medico-legal way. Although the law gives ample margin, public opinion and jealousy look upon a pregnancy prolonged beyond the ninth month as of very questionable legality. We here see, however, from fact, the possibility of exceeding two hundred and ninety days.

There are some few physicians who believe that no conception can take place unless the semen is thrown by the male directly within the os uteri. It is needless to enter into a discussion on this question, for one fact to the contrary is as good as any number to prove its incorrectness. I can give three cases that have come under my notice within the past month, and many others, if necessary, of older date. A gentleman, whom I have known for some time, lately showed me his penis, which was sore with an herpetic eruption. The urethra terminated a little below where the frænum is in other persons, the gland bulging out quite prominently beyond it, and rendering it impossible either to urinate straight forward, or that the semen should be propelled in that direction; a small fold of frænum also, which appears to be a rudimentary affair, stretches across the orifice, making it necessary for him to be careful in urinating, or the urine returns backwards upon his person. This gentleman has three children, and two of them are like himself. I have seen, within the last month, two young females who are pregnant, with unruptured hymen. The hymen in both instances is dense and perforated, in one instance with two, and in the other with three small holes, not larger than a crow's quill. I do not mention these as being unique, for there are many on record.

In view of the late numerous experiments and discoveries of Mantegazza upon the zoosperms of man and other animals, this single fact which I have narrated is interesting.

SURGICAL OPERATION FOR VESICO-VAGINAL FISTULA.

BY EZRA P. BENNETT, M.D.,

OF DANBURY, CONNECTICUT.

LAST summer my son, Dr. Wm. C. Bennett, removed through the vagina, a large calculus from a lady in an adjoining town. The stone was of the size of a large hen's egg, and consequently the opening in the bladder was correspondingly large. The opening did not heal, and in this we were not disappointed. About three weeks ago, I operated upon her for the closure of this fistulous opening, and

with complete success. The simple, interrupted suture of silver was used, six or seven being introduced. On the eighth day the wires were removed, and complete union was found to have taken place. In just two weeks she went home as tight as a bottle, and as happy as she could well be. It has been suggested that the better way in such cases would be to remove the calculus, and then close the wound immediately by the sutures, but I do not think such a procedure advisable, for two reasons. 1st. The mucous coat of the bladder in this case was much ulcerated, and would not probably have united. 2d. By waiting, the opening becomes much smaller, and the parts healthy, and the chances of success, therefore, much greater. In perfecting this operation, Dr. Sims has conferred a great blessing on suffering humanity, and I regret to see that any one should for a moment so far forget himself as to wish to rob him of one iota of his well-earned fame. Although improvements may be made in the mode of operation, the principle is Dr. Sims's, and his alone. I am not, however, at present disposed to admit that any real improvement has been made over Dr. Sims at all. Honor to whom honor is due.

UNUNITED FRACTURE OF THE TIBIA

SUCCESSFULLY TREATED.

By M. W. TOWNSEND, M.D.,

OF BERGEN, GENESSEE CO., N. Y.

A. H., aged 33, fractured the tibia and fibula three and a half inches above the ankle, by a direct blow, August 3, 1856. The fracture was simple, moderately oblique, and the fragments were so slightly displaced that very little manipulation was necessary for their adjustment. The leg was dressed by a competent surgeon, on a double inclined plane, with side splints, and was retained in the apparatus six or seven weeks. As no union had taken place at that time, the leg was supported, and the patient allowed to move about on crutches, with instructions to use it with care, and, after a short time, to bear slight weight upon it. No amendment occurred except in the fibula, which united. At the end of one year, he commenced walking without aid, supporting the leg by an imperfect contrivance of a natural bone-setter. For three years he engaged in laborious occupations, until the leg became almost entirely useless from angular displacement, as the fibula constantly yielded from interstitial change. Oct. 24, 1860.—The tibia at the point of fracture was bowed outwardly ten inches from the correct axis of the limb, and projected anteriorly one and a half inches. Tibia measured in its angular course three-fourths of an inch less than the sound one, while the fibula was quite as long as the other, a condition accounted for by the great separation of the two bones at the fracture, from the excessive deposit of callus into the interosseous space, and from the unnatural office thrust upon the smaller bone of sustaining weight. Around the fracture, the leg measured two and one-half inches more than the sound one, while throughout the rest of its extent it was very much atrophied even to the bones of the foot.

Oct. 25, 1860.—I removed nine-sixteenths of an inch from the fibula at the angle. Interosseous space was filled for some distance above and below the fracture with callus, which impinged so strongly against the fibula as to surround one-third of its circumference, and to carry the anterior tibial vessels and nerve to the inner margin of the smaller bone. A perforator cutting three-sixteenths of an inch, was thrust through the space left by the removal of the piece of fibula, into the callus above and below the point of fracture, between the fragments of the tibia in several directions, as well as into their approximal surfaces. From a point over the internal surface of the tibia, the perforator was thrust in like manner, in radiating lines, until the structures between the fragments were thoroughly

divided. The leg was laid upon a pillow, and dressed with cold water. Oct. 27.—External wound closed by immediate union. No signs of inordinate vascular action. Oct. 31.—One week from operation the callus and opposing fractured surfaces were so softened by the change induced by the perforator, that the angular displacement could be almost removed by moderate force, which could not have been done immediately after the operation. A wide splint, reaching from above the knee to beyond the foot, with an angle at both points, well cushioned with leather and curled hair, was bound to the internal surface of the limb, so as moderately to diminish the angular displacement laterally. Each day the roller was tightened, until the axis of the leg antero-posteriorly was correct. The angle in front could not be remedied by any appliance to the leg, as the patient's heel had been very sensitive since his first injury. The limb, while still bound to the splint, was suspended by means of adhesive plaster applied to the sole and retained by roller, until its own weight nearly reduced the anterior displacement to the true axis. Nov. 9.—Limb put in starch apparatus, and patient allowed to sit up, and after a few days to move about. Dec. 10.—Fracture sensibly less mobile than when last examined. No tenderness on firm pressure. Commencing at a point one inch above the fracture and over the spine of the tibia, the perforator was thrust obliquely downwards and backwards completely through the ends of both fragments and plane of fracture, in three radiating lines, without withdrawing the instrument from the integuments. Starch dressings renewed. Dec. 29.—Dressings removed; scarcely any yielding on application of considerable force; tenderness; apparatus reapplied. Jan. 15, 1861.—Apparatus removed. Fracture firmly united.

Dr. F. H. Hamilton [*Fractures and Dislocations*, page 160, where this case of non-union is noticed] states that according to his observation, delayed union more frequently occurs in fractures of the leg than in any other. Of five cases of simple fractures of the tibia and fibula which have been under the care of the writer, two were examples of union delayed beyond the eighth week, rendering the patient's removal from the bed necessary. If these observations are in accordance with facts, we may see how necessary it is to look well to fractured legs before dismissing our patients as cured, fully satisfying ourselves that there is union by bone.

The above case I consider one which testifies to the efficiency of the treatment for non-union proposed by Dr. Brainard, of Chicago.

Reports of Hospitals.

BROOKLYN MEDICAL AND SURGICAL INSTITUTE.

SURGICAL CLINIC OF PROFS. LOUIS BAUER AND E. A. WHALEY.

CASES OF CONTRACTION AND FIBROUS ANCHYLOSIS OF JOINTS.

[Reported by GEO. A. OSTEANDER, M.D.]

THERE have been seven cases of this kind presented at the clinic. In some, the original disease of the knee-joint had terminated in the deformity; in one, the disease, removed for twelve years, had returned, consequent upon a recent injury; and in three, the disease was in active progress when they were taken in charge.

The satisfactory results attained in all cases, by division of the contracted muscles by pressure, by the straight position and perfect rest of the affected members, exclusive or every other treatment, and this in a comparatively short time, seem to bear out the views of Dr. Bauer, repeatedly advanced in different surgical papers, viz. *first*, that almost all these affections are of a strictly local character; *second*,

that the local treatment is paramount in their management; *third*, that rest, position, pressure, and the division of the contracted muscles, are more reliable antiphlogistics than any other of that class of remedies; *fourth*, that the fibrous adhesions between the corresponding articular surfaces may be broken up with impunity either in the inflammatory condition of the joint, or when the active disease has entirely passed off; *fifth*, that if reaction follows at all, it is an evidence that all the contracted muscles have not been divided; *sixth*, that the gastrocnemius and soleus muscles are occasionally implicated in the contraction, requiring division of the tendo-Achillis. In proof of these remarks, the following cases will be admitted as types.

CASE VI.—Mrs. Sophia W. M——, from Delaware Co., æt. 46, has been afflicted for *fourteen years* with an affection of the left knee-joint and an angular contraction, for which she can assign no cause. Previously Mrs. M—— had enjoyed good health, and was of rather robust constitution, having resided in the country under good dietetic regimen. She has had eleven children, two of whom died of fever; all the rest are healthy. Nor has she derived from her parents any scrofulous taint, the latter having been of excellent health, and died at an advanced age. Although of a delicate appearance and slightly pale, she nevertheless enjoys tolerably good health. She has a good appetite, rests well, and her bowels and sexual functions are quite regular. The left knee-joint is flexed at an angle of about 100°, within which she could move it to, perhaps, an angle of 10°. It is swollen to at least double its natural size, hot, oedematous, and moderately tender; the patella immovably fixed in the inter-condyloid space, but drawn rather more towards the external condyle. As an evidence of the amount of tumefaction of the joint, the subcutaneous veins are enlarged, multiplied, and cross the parts in every direction. There is, however, no fluctuation to be discovered in or about the joint, nor any other discoloration than that caused by the distended venous plexus. The superior extremity of the tibia is somewhat enlarged, and the circumference of its internal condyle rather tender and soft on pressure. On attempting to extend the extremity, the tendon of the biceps became tense, and gave rise to considerable pain. The extremity itself is very much attenuated, and its temperature lowered.

Dr. Bauer stated it as his opinion, that the primitive disease was certainly seated in the apophysis of the tibia, and had already caused some structural changes. Similar cases had frequently come under his observation, and he had invariably found the cancellated structure softened down by a dark red, almost grumous, infiltration, so as to give it the appearance of an apoplexy of the bone. He was, however, not prepared to call it a hemorrhage, which he thought it might well be, particularly in such cases as had been initiated by a fall upon the apophysis of the tibia. At any rate, the present instance had to be considered as an endostitis chronica, in which, most likely, hemorrhage formed an element. The disease of the joint he considered as consecutive synovitis, terminating, in part, in fibrous adhesions of the corresponding articular surfaces, and that the contraction of the biceps was a pathological sequel of either, rarely absent in the like affections. In all its symptoms, the case had the appearance of what was formerly called "white swelling," which, however, is most generally a disease of a complicated nature, as the present case clearly demonstrated. The prognosis Dr. Bauer laid down as dubious, rather tending towards a disastrous termination. It was not a bone abscess, that could be relieved by trephining, but a parynchymatous disintegration. It was of too great an extent to give any hope of removal by excision of the joint; nor could the disease be mastered by free incision into the bone, for the ensuing suppuration would, in all probability, carry off the already debilitated patient. He thought that nothing short of amputation in the lower third of the thigh, would be the indicated remedy. As the mutilation of a patient was a most serious decision, aside from its danger to life, he should not deem himself jus-

tified, at least at this juncture, to resort to that "ultimum refugium chirurgicorum." Moreover, he had had some similar cases under his care, that had, though slowly, yielded to a milder treatment, and he would therefore proceed with that first. If the subsequent changes in the constitutional condition of the patient should force him to amputate, he would do so promptly, without waiting until the patient became too much reduced. He therefore proposed, first, to relieve the case from its pressing complications. In dividing the contracted muscle or muscles, he removed one of the elements that tended to perpetuate the disease; and in breaking up the adhesions of the joint, and so extending the extremity, he would, secondly, give it a position more favorable to rest and comfort. In his surgical practice these two remedies had proved better antiphlogistics than any others he knew. And, in fine, he would make use of pressure upon the diseased bone and joint, by means of good adhesive plaster, spread on Canton flannel. This kind of adhesive plaster he finds to be more pliable than that spread on muslin, nor is it so apt to fold and make unequal pressure. These therapeutic suggestions may seem rather trifling when compared with the objects to be attained, and yet he could not help recommending strongly to their acceptance as decidedly preferable to all the derivative treatment still in vogue. Moreover, he could call to mind several instances in which those remedies, the former alone, accomplished the ultimate recovery.

In conformity with this detailed plan, Dr. Bauer proceeded: The tendo bicipitis was divided, the adhesions forcibly broken up, under chloroform, the entire leg well and firmly bandaged, the apophysis of the tibia and the entire knee-joint surrounded with adhesive straps, and the extremity placed in a well padded iron splint, which corresponded in length with that of the leg. No reaction followed the operation; on the second day, however, the dressings had to be entirely removed, the circulation being rather sluggish and the toes becoming discolored. A cotton flannel bandage was therefore substituted and the splint replaced. Although no increase of the disease manifested itself in or about the knee-joint, the patient was attacked with a remittent fever, of a typhoid type, lasting about nine days, imperilling seriously her life; it subsided however gradually, leaving no other sequelæ than general prostration.

Since then the patient has progressed favorably; the swelling of the joint and its surroundings has materially diminished; heat and soreness are almost gone, and thus far, the case promised well. About the beginning of the next month (August) it was noticed, that when the extremity was in a perfectly straight position, the foot could not be flexed; and that attempts to flex it caused both pain and tension in the knee, whereas, when the knee was slightly flexed, flexion of the foot could readily be performed. The doctor recognised in this a new, reflected morbid innervation, which he promptly removed by dividing the tendo-Achillis. He remarked on this occasion that this was the fifth case in which the division of that tendon had been necessitated, under similar circumstances; and called the attention of the professional visitors to the fact, that the gastrocnemius muscle originating above the knee-joint and inserted below the ankle-joint, was, to a certain extent, a flexor of the former; when this muscle is slightly contracted the patient helps himself by bending the knee-joint, whereby the fixed points approximate each other.

Since the division of the tendo-Achillis, twelve days have elapsed, and the most prominent symptoms have receded. The patient has, with the aid of some mechanical appliances, already made some successful attempts at walking, which have caused no marked inconvenience, and as she is about to depart for home, it can justly be said that she has been materially relieved, and that the disease of her tibia is, if not entirely cured, at least in a fair way of ultimate recovery. On the 31st ult., a letter arrived from the patient in which she states that her knee and limb had gradually assumed a more natural appearance; that she was without pain, and could bear more weight upon the

affected member. From this statement it may be reasonably inferred that her improvement had been steadily progressive.

CASE VII.—Mrs. F., an English lady, æt. thirty-two, entered the Brooklyn Medical and Surgical Institute under the charge of Dr. Whaley, with extensive deformities of her extremities, the result of alleged rheumatic affections. Up to within the last eight years she had been, generally speaking, healthy, although of slender frame and delicate appearance, and regular in her sexual functions, when she was attacked with rheumatic fever. After the acute process had subsided, the local affections persisted, causing her great pain and suffering, and gradually distorting most of her joints to such a degree, as to render her disqualified for her business as an engraver and for her domestic duties. In persevering, however, with local applications, and passive exercises, she almost succeeded in re-establishing her proper form and locomotion, when again she was attacked with the same disease, which left her contracted and helpless. When examined on the 21st of June, the following clinical record of her case was entered:—"The patient is of a pallid and weakly appearance, of slender frame and debilitated nutrition; her vital functions are in tolerably good order, her pulse is however feeble and somewhat exhilarated; there is some irregularity of the alvine functions, constipation alternating with diarrhoea. She is entirely unable to use her hands; and locomotion, even with the aid of crutches, is greatly impeded and almost impossible; some of her fingers are rigidly flexed into the palm of her hand, others but slightly, and drawn laterally. Their joint mobility is of little use, and hardly sufficient to hold objects of the size of an orange. The wrist and elbow joints are slightly flexed and cannot be perfectly extended. All joints concerned in these parts, with the exception of one phalangeal joint, which is ankylosed, are rather loose, allow within a certain range more than the ordinary motion, although the latter is exceedingly painful, manifesting at the same time a grating sound from the articular surfaces. When undisturbed they do not cause any pain. In a similar manner, but not to the same extent, the mobility of her spine is impeded. The knees are considerably bent, the flexors shortened, the joints and the patella so completely ankylosed as not to permit motion. When walking with crutches she has to be supported by another person, not being able to hold them firmly, and even thus supported she walks but slowly, upon the balls of her toes. There is the same grating in the tibia, tarsal, and some joints of the toes."

Dr. Whaley, in commenting on this case, remarked that it presented some peculiar features of note. In the first place, it is the nature and extent of the disease which has left its traces almost in every joint. The history of the case points at rheumatism, but he could not account for the detailed consequences on such premises. Rheumatism might have started synovitis and bursitis of the joints and muscles implicated, eventually obliterating some of the serous slides; thus forming a serious impediment to muscular volition. All joints, however, presenting grating on motion, it was evident that the cartilages had more materially suffered, having undergone partial ossification, or at least calcareization, which is not the ordinary sequel of a purely rheumatic process. These effects of the disease implied a more general contamination of the nutritive process, with peculiar tendency to calcareous deposits, which is in and about joints identical with gout. The prognosis, under the circumstances, was decidedly unfavorable, for the disease was of long standing, of great extent, and evidently inveterate. Some of the joints, especially those of the fingers, offered very little hope of improvement, their capsular apparatus being much relaxed and toneless. But since the patient had chiefly applied for relief in her locomotion, the question of treatment was restricted to the lower extremities. The doctor thought that the ankylosis of the knee-joints could be successfully overcome, with the aid of anæsthetics, by main force, and thus the extremity

straightened. Another difficulty, however, would remain in the rough surface of the cartilages. Perhaps passive motions might gradually grind down the calcareous deposits, and if so, the patient would derive material improvement from such a proceeding. Whether the contracted muscles would yield without division was another question, which could only be decided in the process of the operation. At any rate, the attempt to relieve the deformity, and to render the patient more self-dependent, was every way worth trying, and he therefore proposed to place the patient under the full influence of chloroform, to straighten the knees by main force, to divide the implicated muscles, should they offer any resistance, and secure the straight position of the extremities by appropriate mechanical appliances. In accordance with the plan designated, Dr. Whaley proceeded. As had been anticipated, the pathological connexions of the corresponding articular surfaces in both knee-joints yielded most readily. Considerable crackling was noticed, evidently from some slight osteophytes giving way. The subsequent motions of the joints presented the same rough and hard grating. The flexor muscles extended sufficiently without division. Thus the extremities were brought into a straight position having been carefully bandaged from the toes upwards, the joints surrounded by adhesive strips, and secured in this position by well padded iron splints. The reaction following was rather unexpected. There was a good deal of pain in both the joints and the interested muscles, and the constitution suffered proportionally. It was therefore deemed proper to remove all restraints of dressing and position, and to allow the reaction to subside. The dressings, though carefully and judiciously applied, had already caused some ecchymosis at two or three places, with prospective sloughing, which had to be overcome prior to another attempt at orthopædic treatment. Dr. Whaley remarked on this occasion, that the chief cause of failure rested most probably in the contracted muscles. His experience, and that of his colleague, Dr. Bauer, had taught him that no reaction ever followed the *brisement force* of joints, if the opposing muscles had been previously divided; whereas the reaction was inevitable if the contraction of the muscles had been allowed to remain. Some surgeons, more especially Prof. Langenbeck of Berlin, held that the division of contracted muscles was unnecessary; but the doctor had never had an opportunity of meeting with cases that could have been successfully overcome without division. Though willing as he was to pay due deference to so commanding a surgical authority as that of that eminent gentleman, he thought that Mrs. F.'s case required the knife.

During the subsequent six weeks the time was employed in correcting the general and local difficulties, whilst occasional passive motions were instituted to preserve the attained mobility of the joint.

At the end of that period Dr. Whaley divided the hamstrings of the patient and secured the members in the same way as above stated. No reaction followed this time, and convalescence proceeded slowly but steadily. There remained, however, a slight flexion in the left knee-joint, apparently independent of the flexor muscles. When the patient attempted to walk she could easily straighten the extremity, but when straight the heel did not come down to the floor. This attracted the attention of the doctor when, on examination, he discovered that the gastrocnemius and soleus muscles were the cause of this symptom, they being moderately retracted. When the knee was bent, the patient could flex her foot without restraint, but not so when the extremity was completely straightened. In this position the attempt at flexing the foot was both unsuccessful and painful in the knee. The only remedy for this unexpected trouble was the division of the tendo-Achillis, which he promptly resorted to. After this the treatment consisted chiefly in passive exercise of the knees, which gradually succeeded in overcoming all rigidity and grating of the joints, ultimately resulting in a fair condition for locomotion, when the patient was discharged.

American Medical Times.

SATURDAY, MARCH 9, 1861.

AMERICAN IMMIGRATION.

THE Commissioners of Emigration report that during the year 1860, 105,162 emigrants landed at the port of New York. This is an increase of 25,840 over 1859, and 26,573 over 1858, but 78,611 less than in 1857, and 37,180 less than in 1856. Of these emigrants, 47,330 were from Ireland; 37,899 from Germany; 11,361 from England; 8,572 from other countries. The improved condition of the emigrant, as compared with former periods, is noticed by the Commissioners. It appears that while the number of alien emigrants arrived during the year shows an increase over the years of 1858-9 of some 22 per cent., the number of destitute and diseased persons chargeable to the Commission in their institutions on Ward's Island, and temporarily furnished with board and lodging in the city, and relieved and provided for in the various counties, shows no increase over the year 1859, and is over 4,000 less than in 1858, and is less than in any previous year.

The facilities for emigration from European ports have been largely increased within a few years, and it is gratifying to notice a corresponding improvement in the class of persons who are now seeking homes among us. The protection which our authorities now extend to the immigrant immediately upon his arrival, and the facilities which they afford him for reaching his destination, should be noticed as having an important bearing upon his happiness and future success. For a long period the immigrant was left a prey to desperate bands of land-pirates who hovered about quarantine. Ignorant of the language, unaccustomed to travelling, unsuspicious and confiding, the poor traveller would readily fall into the toils laid for him, and even before landing would often be divested of every farthing of his carefully preserved treasure. Thus thousands, whose destination was the far West, were left destitute in our city, and compelled to seek daily bread by any menial service. Happily these outrages are now rarely perpetrated, and the immigrant, with his family and goods, passes directly, rapidly, and undisturbed to his ulterior destination. There is, however, one passage in the history of the emigrant which deserves the immediate attention of government. We refer to the wholesale prostitution of unprotected females on shipboard by the ship's crew. The revelation of these crimes, which are frequently made, are discreditable in the highest degree to masters of ships, and even to shipowners. If we are not misinformed, emigrant vessels are often but floating brothels. Government should throw around the emigrants, during the voyage, such safeguards as will protect them from the hand of violence, and of crime of every nature.

There are some features in the history of emigration to this country which we shall take occasion to notice in connexion with the above facts.

Previously to September 30, 1819, no reliable records of immigration were kept by our government, and all computations of its amount at any given period before that date are conjectural. It is estimated, in round numbers, that

from 1754 to 1819, 150,000 immigrants landed on our shores. After 1819 the public records give us reliable data from which to ascertain the extent and fluctuation of immigration. It appears that from this date, to December 31, 1855, the number of alien emigrants was 4,212,624. For the first year of this period, ending September 30, 1820, the number was 8,385, the increase was gradual until 1831-2, when it arose from 22,633 to 53,179. From this period the increase regularly continued until it reached in 1842, 104,565. During the next two years, 1843-4, the number again fell, but from the latter date to 1854 it rapidly increased until it reached the enormous figure of 427,833. In the following year, 1855, it fell nearly half, and in 1858, it was but 144,652. It is estimated that the aggregate emigration to this country from 1784 to 1859 amounts to 5,000,000 persons. There are always two circumstances influencing, if not controlling emigration. The first is the condition of the country from which emigration takes place, and the second that of the country towards which it tends; the very act of emigration indeed presupposes that the former is unfavorable and the latter favorable to the prosperity or happiness of the emigrating classes. Human history is but a panoramic view of these shifting scenes, each illustrating but different phases of the same truth. In general the causes which lead to the removal of any considerable class from their paternal homes spring either from the oppressions of government or the hope and promise of gain. Proscribed classes have often been forced to seek permanent abodes on foreign and sometimes inhospitable shores. But more frequently emigration is a voluntary act, determined by both of these causes, viz. oppression at home and the hope of gain by adventure. This is eminently true of the emigration to America from European and other countries, and the fact that this tide has set steadily to our shores, from all parts of the world, for eighty years, with but an occasional ebb, proves conclusively the adaptation of our soil, climate, and above all, our free institutions, to promote the happiness and prosperity of mankind. The sources of this emigration, and its amount from different countries, do not determine positively the degree of oppression under which an individual people labor, and the restraints to which their physical well-being is subjected by either soil, climate, or government, though they must approximately. In this view, it is interesting to notice the countries which have constituted the aggregate of our alien population during this period. Of the 5,000,000 immigrants who have arrived since the establishment of our government, Great Britain and Ireland contributed 2,600,000; Germany, 1,600,000; France, 200,000; British America, 100,000; Sweden and Norway, 50,000; China, 50,000; Switzerland, 40,000; West Indies, 36,000; Holland, 18,000; Mexico, 16,000; Italy, 8,000; Belgium, 7,000; South America, 5,500; Portugal, 2,000; Azores, 1,300; Russia, 1,000.

The fluctuations in emigration which we have noticed have been due to temporary causes, which have merely interrupted the enlarging current, or suddenly swollen it to an unprecedented degree. Among the first of these we notice the disturbance of the friendly relations existing between our government and those from which emigration takes place, commercial crises, etc.; and of the latter, the chief are acts of proscription by foreign governments, the occurrence of famine, etc.

The emigration to America, since the establishment of

our government, considered in any respect, whether political, social, or religious, must be regarded as the most remarkable in the history of mankind. For nearly a century, from every civilized, and from many semi-civilized nations, the drift of emigration has been to our shores. The emigrant is generally the poor, the disaffected, or the vicious, who seeks either to improve his condition, or gain a wider field for the exercise of his hitherto restrained passions. Yet from this singular admixture of races, religions, and diverse political education, there has as yet resulted only harmony, peace, prosperity, civil and religious freedom, and universal domestic happiness. The problems which these now historical facts present to the speculative are numerous, and of remarkable interest. The theoretical statesman has no precedent to determine the future complexion of our political institutions; the speculative theologian can by no process of reasoning or generalization establish a national church; and the ethnologist is at a loss as to the final type of an American.

THE WEEK.

ANOTHER special meeting of the N. Y. County Medical Society was held on the 26th inst., and we notice an increased interest of the Profession in the praiseworthy attempt which is in progress, to give efficiency to an organization which has suffered to be too long in a dormant state. The attendance was good, and the meeting an interesting one. A valuable paper was read by Dr. S. HANBURY SMITH, on the Indications for the Use of Mineral Waters in the Treatment of Chronic Diseases, as previously announced, and items of medical intelligence were communicated by one of the members of the Committee, whose special duty it is to furnish such contributions at each meeting.

We were gratified to notice the presence of several of the old members, who recollect the Society as it once was, and who are desirous for its renovation. Several younger members of the Profession have recently joined, and others will doubtless follow when the position and objects of the Society are more fully understood; and it is to these that we must look for an impetus which will raise it to an enviable place among the scientific associations of our city.

Prof. G. S. BEDFORD was appointed by the President to pronounce an eulogium upon Dr. FRANCIS, agreeably to a resolution adopted at a recent meeting of the Society held for the purpose of paying a tribute of respect to the memory of one of its distinguished members. The prestige of Prof. B.'s reputation as a graphic critic and a graceful and engaging speaker, and a subject affording such abundant scope for eulogy of the most honest kind, and which has such a strong hold upon the hearts of the Profession, will render the occasion one of unusual interest, and we trust that measures will be taken to gratify a large audience of both sexes.

THE twenty-fourth annual commencement of the University Medical College, was held on Monday evening, the 4th inst., when the degree of M.D. was conferred by the Chancellor, REV. DR. FERRIS, on 129 graduates. In addition to this number, six members successfully passed the examination, from whom diplomas were withheld as they had not attained the required age of twenty-one. The annual awards of prizes were also made. The Mott medals were awarded as follows, viz. one of gold to EUGENE S. OLCOTT,

of New York, for the best dried anatomical preparation; the second of bronze, to MONTEFIORE J. MOSES, of Georgia, for the best record of Prof. Mott's Clinical Instructions. The METCALF prizes for the two best reports of the clinics of the Professor, were awarded to WM. R. REYPEN and ALEX. R. GEBBIE. The Van Buren prizes, consisting of two cases of instruments, were awarded to JOHN D. MURPHY and WM. R. REYPEN. The graduating class were addressed by PROF. A. C. POST. His address was replete with wholesome advice, and was listened to with great interest. This school is in a highly prosperous condition, the number of matriculants being 420.

At the meeting of the Academy of Medicine, Feb. 20th, Dr. KISSAM read an interesting account of the last illness of Dr. FRANCIS. Dr. SIMS, in some well-timed remarks upon the character of Dr. FRANCIS, alluded to a recent conversation between Dr. FRANCIS and Dr. MOTT, at which he was present. Dr. FRANCIS remarked that if Dr. MOTT died first, he would embalm his memory in a biography worthy of so great a subject, but added, if I die first, who will be my biographer? Dr. SIMS suggested Dr. MOTT. Dr. MOTT replied to Dr. FRANCIS, that he had known him long and intimately, but feared his inability to do justice to his character. At the conclusion of Dr. SIMS's remarks, we need scarcely add, that the Academy unanimously appointed Dr. MOTT the biographer of Dr. FRANCIS.

THE Homœopathic College of this city recently held its commencement, on which occasion the President gave the following significant charge to the graduates. We need no other proof of the utter worthlessness of the system which these young men are now deemed qualified to practise:—

"You need not stick alone to Homœopathy; if that will not cure, try Allopathy. If Allopathy fails, try Hydropathy, and if you are not then successful, adopt Spiritualism or any other curative means that may be at hand."

It is deeply humiliating to add that this Institution has a charter from the State, and by its diploma places its graduates upon the same legal footing as those of our best schools.

THE preliminary course in the Long Island College Hospital commenced on the 18th inst., and we are pleased to hear that the prospects are flattering for a good class during the regular session, which commences on the 18th inst. Notwithstanding the political troubles, students from the Southern, as well as the Northern States, are already matriculating.

A COURSE of lectures on Ophthalmic Medicine by Dr. GARRISH, of the New York Ophthalmic Hospital, is announced to commence on the 11th inst. The time will be favorable to students, and many will doubtless avail themselves of the opportunity of acquiring practical knowledge of this branch of the healing art.

GURGLE [FOR DIPHTHERIA.—Pyroligneous acid and water, equal parts; chlorate of potash, as much as will dissolve; honey enough to sweeten well; to be used two or three times a day. In very bad cases, when the whole fauces are covered over with the diphtheritic exudation, I omit the water and only use a little more honey with the acid.—DR. FAULKNER, in *Maryland and Virginia Med. Jour.*

Reviews.

THE INSTITUTES OF MEDICINE. By MARTYN PAINE, A.M. M.D., LL.D. Sixth Edit. New York: Harper & Brothers, 1860.

THE veteran author of the Institutes continues to contrast, in the successive editions of his work, the new theories of disease and therapeutics, as they arise, with the principles therein laid down. In the present edition we find the attention of those theorists who are so boastful of the powers of nature in the cure of disease, called to the fact that this doctrine is as old as the history of medicine. The industry of the author in perfecting his work is worthy of commendation.

SURGICAL AND PRACTICAL OBSERVATIONS ON THE DISEASES OF THE HUMAN FOOT, WITH INSTRUCTIONS FOR THEIR TREATMENT. To which is added Advice on the Management of the Hand. Illustrated with six colored plates. By J. ZACHARIE, Surgeon-Chiropodist. New York: Charles B. Norton, 1860. pp. 96.

IN the whole range of Surgical literature, no treatise is more likely to attract attention than one devoted to Corns. It is a subject in which every man who walks the streets has a personal interest, and on which he often feels acutely. The author of this work is a professed Chiropodist, who has long enjoyed a reputation as a skilful and successful practitioner of his art. He has here given his experience of this class of painful and troublesome growths, and practical rules for their treatment. We have examined the work with great interest and profit; and although we might be disposed to dissent from some of the propositions of the author, we cordially recommend it to the attention of the profession as embodying a large amount of valuable information. It is dedicated to Dr. Mott, who has signified his interest in the success of the author's labors. The illustrations are well executed lithographs.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, at the Ninth Annual Meeting, held in the City of New York. Sept. 1860. Philadelphia, 1860. pp. 728.

THIS volume, though not as large as the last, contains many papers of interest both to pharmacutists and physicians. The report on the Progress of Pharmacy will repay perusal, as it embraces the improvements in this department during the past year. The report on Home Adulterations briefly alludes to the more common adulterations, but the committee state that "they feel that much ought to be said and done, which they dare not take the responsibility, as individuals, of saying and doing." The adulterations of milk at Boston are noticed, and the singular fact appears that one milkdealer sold genuine milk. The special reports are eighteen in number, and the volunteer papers six, many of which are of much practical interest.

A PAPER ON DIPHTHERIA, read before the New York Academy of Medicine, January, 1861. By JAMES WYNNE, M.D., New York. Baillière Brothers, 1861. pp. 32.

DR. WYNNE has embodied in his paper the principal facts relating to the history, causes, symptomology, and treatment of Diphtheria. It will be read with interest and profit by the practitioner who has to contend with this formidable disease.

ERRATUM.—In Number IX., page 153, first column, the date of the *Synopsis Medicinæ*, by Salmon, should read 1680 instead of 1860.

RESIGNATIONS OF MEDICAL OFFICERS IN THE ARMY AND NAVY SINCE NOV. 6, 1860.—ARMY.—*Surgeons* S. P. Moore, S.C.; David C. De Leon, S.C. NAVY.—*Surgeons* W. A. W. Spottswood, Va.; — Grafton, Ark.; Algernon S. Garnett, Va.; *Passed Assistant-Surgeons* A. M. Lynch, S.C.; T. J. Charlton, Ga.; *Assistant-Surgeon* C. E. Lining, S.C.

Progress of Medical Science.

PHYSIOLOGY AND PATHOLOGY.

By W. H. THOMSON, M.D.

3. *Variations in the Constituents of Healthy Urine.*—Mr. Houghton publishes, in a communication to the *Dublin Quarterly Journal*, Aug., 1860, the results and conclusions from numerous examinations made by him on various persons, some chiefly engaged in mental, some in bodily labor; and among the latter several of the inmates of the Military Prison. 1. The quantity of urea passed per day by men in health varies with their food and occupation, the latter being the principal cause, and regulating the other. 2. Men employed only in manual or routine bodily labor are sufficiently well fed on vegetable diet, and discharge, on an average, 400 grs. of urea per day, of which 300 grs. are spent in vital, and 100 grs. in mechanical work. This conclusion is in conformity with the experience of the mass of mankind employed in manual labor in all ages and countries. 3. When the work is of a higher order, a better quality of food must be supplied, sufficient to allow of a discharge of 533 grs. per day of urea, of which 300 grs. are spent, as before, in vital work, and 233 grs. in mental work, and the mechanical work necessary to keep the body in health. 4. The quantity of urea discharged per day varies also with the weight of the individual, which influences the vital and mental work. 5. The habits, weight, and occupation of the individual enable us to account for a range of the diurnal quantity of urea, varying from 300 to 630 grs. per day; and this discharge may be confidently predicted, when the habits and weight are known. When in any case the discharge of urea exceeds that calculable by the preceding data, it must be attributed to ill health, and most generally to that most fatal of all diseases, anxiety of mind—a vague and unscientific expression, which, however, denotes a most real disease. This fact alone would render the preceding investigation of importance to the physician, as it enables him, in a given case, to pronounce whether there is an excess of urea or not, and a consequent waste of the system. I have shown that the mere quantity will not decide the question, as from 300 to 630 grs. may be discharged by persons in perfect health, according to their peculiar work and physical conditions.

4. *Researches upon the Acclimatization of the Human Race.*—M. Boudin publishes an interesting paper with this title, in the *Annales d'Hygiène Publique*; and the conclusions at which the author has arrived are: 1. That it is nowhere proved that the human races are cosmopolitan, and a great number of facts even lead to an opposite opinion. 2. The faculty of acclimatization beyond the limits of the native country varies according to the species of the human race; and this difference is verified by the corresponding differences in the proportion of disease and death. 3. It has not yet been shown that the European can be perpetuated under the tropics, or even, in the condition of an agriculturist, in the north of Africa. 4. The adaptation of Europeans to a new climate appears to be effected with less difficulty in the warm countries of the southern, than in the northern hemisphere. 5. Europeans appear to bear migrations from south to north less easily than from north to south. 6. It has not yet been demonstrated that the negro race can be perpetuated in Gibraltar, in Egypt, in Algeria, in Ceylon, in the Mauritius, or in the English or French Antilles. 7. The negro race appears to become very readily acclimatized in the southern division of the United States of America, whilst it dies out, and presents a deplorable predisposition to mental alienation in the Northern States.—(*Lond. Med. Rev.*, Nov.)

5. *The Arsenic-Eating Imbroglia.*—Hardly any question of fact, for the last ten years, has proved so hard to settle, as whether there is a class of human beings in Styria,

Austria, who make a practice of eating deadly ratsbane; but we hope that Prof. Roscoe has succeeded in giving this dispute a quietus, at least as far as the fact of its actual existence is concerned, by his paper read before the Manchester Philosophical Society, Oct. 30, 1860, in which he brings forward an amount of affirmative testimony sufficient to prove their eating anything. Among other cases is one transmitted to him by Dr. Schäfer. In presence of Dr. Knappe, of Oberzehring, a man thirty years of age, and in robust health, ate, on the 22d of February, 1860, a piece of arsenious acid, weighing $4\frac{1}{2}$ grs.; on the 23d, another piece weighing $5\frac{1}{2}$ grs. His urine was carefully examined, and shown to contain arsenic. On the 24th he went away in his usual health. He informed Dr. Knappe that he was in the habit of taking the above quantities three or four times each week. A number of other cases, witnessed by the medical men themselves, of persons eating arsenic, are also detailed. Dr. Holler, of Hartberg, said that he and other persons, named in his report, guarantee that they are acquainted with forty persons who eat arsenic; and Dr. Forcher, of Gratz, gives a list of eleven in his neighborhood who indulge in the practice.

We can readily credit these statements of arsenic-eating, for we have ourselves seen corrosive sublimate eaters in the Levant, one of whom ate about eight grains, in our presence, without injury.

Reports of Societies.

KINGS COUNTY MEDICAL SOCIETY.

THE HEALTH LAWS OF BROOKLYN.

At a meeting of the Kings County Medical Society, held on the 20th of December, 1859, the Chairman of the Committee on Public Health, Dr. A. N. BELL, submitted a REPORT ON THE NECESSITY OF A SANITARY CODE FOR BROOKLYN. Immediately after the reading of the said Report, the Society "unanimously resolved that the Committee on Public Health be and are hereby authorised to confer with the corporate authorities, with the view of carrying out its objects." The committee having failed to accomplish anything under this resolution, at a meeting of this Society, held on the 18th inst., the Chairman of the Committee obtained leave to revise and publish the following report:

All questions which have for their object the preservation of life merit the first rank among the intelligent portion of every community. And it is at least the pleasure, if not the pride, of the medical profession, that they perpetuate the deliberately expressed opinion of the great Sydenham, on small-pox, that "it is better to assist mankind than to be commended by them."

In the Code of Ethics of the Kings County Medical Society, the first article, under the head of "Duties of the Profession to the Public," states that, "As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever ready to give counsel to the public in relation to matters especially appertaining to their profession; as on subjects of medical police, public hygiene, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations, the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions; in relation to the medical police of towns, as drainage, ventilation, etc.; and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives."

The sources of information on the subjects comprehended in this obligation of our Society have, until recently,

been so widely dispersed through numerous foreign periodicals and State documents, that to have arranged them into a well digested code of laws would have involved a laborious research. Hence it is that the Health Laws of our city are a heterogeneous collection of provisions against evils which have from time to time existed in our midst, but which would never have occurred, had we been duly mindful of the experience of other and more enlightened communities in the science of public health. It is true, however, that we have laws and ordinances which profess to have for their object the "preservation of public health." And the first aspect of these laws is flattering to the public appreciation of their merits, yet, if we analyse them closely, they are found to be deficient in the very groundwork of an enlightened code. Our existing laws take it for granted that every individual in the community is informed on what constitutes an equitable supply of pure air; that every one is versed in the scientific principles involved in ventilation; that all alike appreciate the importance of light, and the necessary degree of temperature and dryness; that all know the conditions and danger of sleeping amidst the fumes of charcoal; that each tenant of every tenement house has a just appreciation of the benefits of cleanliness; and all are regardful of each other's welfare, and therefore careful to have their children vaccinated; that everybody knows the importance of wholesome food and drink, and that any one can detect the slightest deviation in this respect by his or her own digestive capabilities. All are supposed to be equally learned in the ills that flesh is heir to, in the causes of death, and in nosological terms, and therefore any one is competent to give a legal certificate of the cause of death. Based upon this high degree of intelligence, our Board of Health is constituted in accordance therewith—no individual of it being a member of the medical profession. It consists of the Aldermen, or of such a number of that body as the Common Council shall designate, with the Mayor for president, or, in his absence, the President of the Board of Aldermen. The members of this Board are supposed to understand all the principles involved in the laws they are called upon to execute; and to this end it is also to be supposed that the subordinates they select from the policemen are in like manner competent to judge of the conditions requisite for the intelligent action of the Board—that is to say, they are presumed to be conversant with malignant, infectious, contagious, and epidemic diseases, and all the conditions of their prevalence. They therefore have the total charge and management of all lands, buildings, and premises for hospitals and hospital purposes. They have the right, as they are supposed to have the necessary knowledge, to decide upon any case of infectious or contagious disease, and they have the power to procure the removal of any person in accordance with this right; and to secure intelligent and faithful action, the *City Clerk's* certificate may be required as a voucher.

This Board is also necessarily learned (in effect) in physiology and chemistry, for the laws provide that they take cognizance of *fomites* of every kind, of all articles of bedding and clothing, of all alimentary substances which they may deem incompatible with the highest standard of health. It is useless to pursue this category, for there is much more of the same character. Let it suffice that the laws provide that one only of the *subordinates* to the Board of Health can be *reasonably* supposed to know anything of the duties thereunto pertaining; and that he, the Health Officer, is not a member of the Board, but is in all respects, *by the laws*, on a level with the policeman detailed for the most menial offices. The Health Officer is an appointee of the Common Council, and his duties are *whatever may be prescribed to him by the Board of Health*, having no voice in its councils, but obliged to do its bidding. Is it at all surprising, that in view of these circumstances and incoherences, we should be constantly appalled by a large mortality as a necessary sequence to patent evils? Aye, there is a great source of death existing in this community, the causes

of which we have no power to investigate. And though all the members of this Society experience ever so great a degree of leisure, each one reads the footing up of the mortality list, week after week, with perpetual astonishment that so many die while there is so little sickness. When a ship has sunk or a building fallen, there is an immediate cry for the punishment of some individual whose selfishness or carelessness has led to the calamity, in order that all men may be warned against the like dereliction of duty in time to come. Yet these incidental droppings, which so startle the ear, are as nothing compared to this stream of dark waters.

It is in no spirit of censoriousness that your Committee have felt called upon to give this résumé of our existing laws for the preservation of health. It would ill become this Society, or any member of it, to consider the subject of public health with any such purpose. It is to be feared that too many of us have been guilty of the same neglect that we charge upon others.

Those who act on the principle of being free to pursue their own business, or follow the dictates of their own interest without regard to the health and to the lives that they may sacrifice—no matter what their calling—possess a power of evil which no code of laws can obviate; and, if powers created for the preservation of public health may be abused, the evils arising from that abuse bear no comparison to those evils growing out of the freedom of every man to injure his neighbor.

Appreciating then, as we do, that it is as inconsistent with the scope of education as with the condition of things illustrated by our existing health laws, that the masses, or that the aldermen and councilmen selected from the masses, can be expected to understand the best conditions for the promotion of health, it behoves the members of the Kings County Medical Society to discharge the obligations of their profession, and to recommend a code of such completeness as to provide a qualified *personnel* for its faithful observance. Such a code we find in the "Draft of a Sanitary Code for Cities," Appendix E, in the Third Report of the National Quarantine and Sanitary Convention. The duty of executing and enforcing the provisions of this code is vested in a Board of Health, at least one-third of the members of which shall be Doctors of Medicine. And its "General Provisions" are that there shall be appointed annually, or at least at such times as shall be determined—

(1) A Registrar who shall be a Doctor of Medicine, whose duty it shall be to record the births, deaths, and marriages, and to regulate all funerals, and the proceedings thereunto appurtenant.

(2) A Medical Health Officer, who shall be the principal physician-in-ordinary to the Board of Health, who shall superintend, under the direction of the Board of Health, all the sanitary measures ordered by the Board; and who shall advise them generally as to all matters relating to the public health.

(3) A Board of — Consulting Physicians, whose duty it shall be, in case of an alarm of any contagious or other dangerous disease occurring in the district, to give the Board of Health all such professional advice and information as they may request, with a view to the prevention of such disease, and at all convenient times, when requested, to aid and assist them with their counsel and advice in all matters that relate to the preservation of the health of the inhabitants.

(4) An Engineer or Surveyor, whose duty it shall be to furnish all plans required for the use of the Board, to advise in relation to the construction and grade of the streets, the structure of the drains, the water supply, and generally, with regard to all plans for improving the surface and substratum of the district.

(5) Superintendents of Streets; of Health (or Cleaning), of Drains; and of Burials; whose duty it shall be to supervise, and direct, and execute the details of the various departments to which they shall be assigned, under the

direction of the Board; of the Health Officer; or of such other person as the Board of Health may direct.

(6) Such other officers as the Councils may from time to time determine.

The comprehensive and striking results brought out by the various recent investigations as to the best means of promoting health in cities, as well as those results derived from other sources of information, are so complete under the provisions of this "Draft," that we regard it as a model upon which legal provisions may be based for all the varied conditions of corporate communities. And we would that every member of the Kings County Medical Society should consider himself committed to such a reform of the Health Laws for Brooklyn as shall not stop short of a code based upon the principles herein embodied.

Correspondence.

UTERINE RETRACTOR.

[To the Editor of the AMERICAN MEDICAL TIMES]

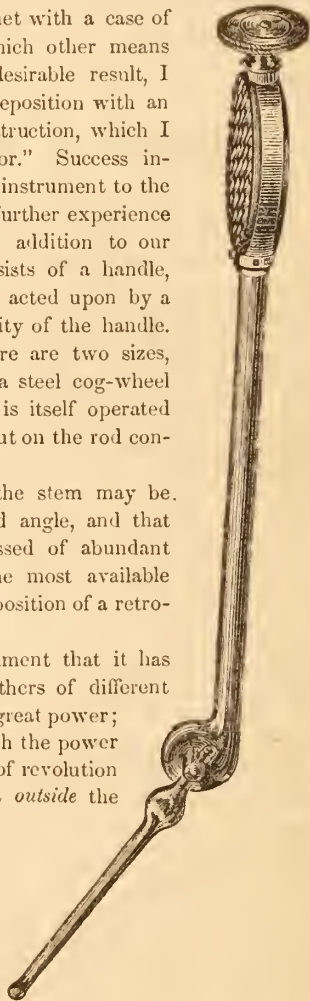
SIR:—Having recently met with a case of retroverted uterus, in which other means failed to accomplish a desirable result, I was led to attempt its reposition with an instrument of novel construction, which I call a "Uterine Retractor." Success inclines me to present the instrument to the profession, trusting that further experience may prove it a valuable addition to our *armamentarium*. It consists of a handle, shaft, and movable stem, acted upon by a screw-disc on the extremity of the handle. The stems, of which there are two sizes, screw into the axle of a steel cog-wheel (wholly inclosed), which is itself operated by a "perpetual screw" cut on the rod connected with the disc.

It will be seen that the stem may be introduced at any desired angle, and that the instrument is possessed of abundant mechanical power, in the most available form for the successful reposition of a retroverted organ.

I claim for this instrument that it has great advantages over others of different construction, in—1st. Its great power; 2d. The direction in which the power is applied; 3d. The axis of revolution being at the *os uteri* (not *outside the vagina*); 4th. The absence of all danger to the fundus from pressure of the point; 5th. The ease with which the position of the uterus may be ascertained at any period of its ascent, by means of the knob on the stem projecting through the axle. The diagram represents the "Retractor" half size.

Messrs. G. Tiemann & Co. manufacture the instrument in New York. H. WEBSTER JONES, M.D.

CHICAGO, Feb. 13, 1861.



DIPHTHERIA—CREASOTE AS A LOCAL APPLICATION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—Within the last eighteen months I have treated over sixty cases of the disease, in what I suppose must have been a very mild form, for not more than a dozen of them caused me over two visits each. The mildest cases, however, were very slow to regain perfect health and strength, consequently, in a few instances, when the patient had been so little sick as to be regarded as independent of his physician, relapses occurred which caused me more trouble than any of the original cases. I have never treated any acute disease in which the time of convalescence was so long in proportion to the severity of the symptoms. This, I think, is an important characteristic of the disease. Another is the fetor of the breath, which I consider more characteristic than the false membranes. The latter are not present to any great extent in any but cases of considerable severity, while the fetid breath accompanies all cases in all stages, and I have, by its aid, correctly foretold, in numerous instances, an attack from twenty-four to forty-eight hours before its accession. The description of the membranous deposit, by Dr. Jonathan Kneeland, is accurate and impressive. I have seen this deposit repeatedly in bad cases of scarlatina in the throat, and on all the denuded surfaces on the patient. There is a striking similarity between the two diseases, particularly in severe cases, and still there are points of difference (the membrane is not one of them) which separate them widely. The easy perspiration in diphtheria contrasts strongly with the dry surface of scarlatina, while the absence of the eruption in the former, with the peculiar fetor of the breath; the protracted, wavering convalescence, and the fact of its attacking, apparently by choice, the families, and members of families (in my region) who had but two years before been visited by the severest epidemic of scarlatina that I have ever witnessed, complete, to my mind, the demonstration of their specific difference.

In the treatment of diphtheria (I don't like the name, because it springs from but one, and that only an incidental symptom) I have from curiosity made use of about all the articles mentioned as local remedies. Alum blown into the throat I laid aside years ago, after nearly suffocating several patients. I should think very highly of the method of application, for it would be convenient in other throat diseases if I could learn how to practise it without danger.

The chlorine mixture and chlorate of potass I have used in this disease and in scarlet fever, but have never witnessed any such good and prompt results as my reading had led me to expect. My main object in writing this letter is to say that I have found in creasote a better application than all the rest combined. One or two applications remove the fetor, and its continuance cures the throat. In a few instances, where the throat was badly coated, I used first as strong a solution of nitrate of silver as I could make, and then followed it with creasote. Once instead of the arg. nit. I used sulphate of copper and I think it better than the nitrate of silver, but might change my mind if I had further opportunities for trial. My treatment was about as follows, leaving out incidentals: Of turpentine, followed by any warm drink (smart-weed tea usually) scarifying the throat (Dr. Moses Sweet does not speak too highly of this measure), and creasote, ten or more drops (according to the sensations of the patient), in a gill of warm water, used as a gargle, or if the patient was too young for that, applied with a swab. When the acute stage was passing off, in cases of severity, I gave, with good effect, quinine and carbonate of ammonia.

Convalescents did well on liquid persesquintrate of iron and would have done as well, perhaps, on any other form of iron, while many required nothing.

In conclusion, allow me to call the attention of the profession again to creasote as a local application.

B. T. K.

LIVINGSTON Co., N. Y., Feb. 20, 1861.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE CITY OF BROOKLYN,

FOR THE YEAR 1860.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In about fifteen minutes' examination of this document we notice three things:

1. The writer seems to make the New York City Inspector's Reports his standard of excellence, and quotes largely from them.

2. The writer recommends to the City Council of Brooklyn, the passage of an ordinance which he gives in full. This ordinance, the origin of which he says nothing, is, in all its principal provisions, and to a great extent in its language, a copy of an ordinance proposed some years since by the Superintendent of Health of the City of Providence, and which, after five years' experience, has been condemned by its author in his recent report on registration to the Quarantine and Sanitary Convention.

3. The Health Officer of Brooklyn, in relation to the prevention of small-pox, says:—

"In order to relieve the minds of parents in relation to the quality of (vaccine) matter to be used upon such occasions, and also to meet the wants of the medical profession in this city in particular, *I would recommend that a cow be set apart, and kept at the grounds of the almshouse or elsewhere for this especial purpose, from which fresh (vaccine) matter could always be obtained.* The authorities of Boston have for several years, in this manner, and with effect, supplied the profession in that vicinity."

The italics are ours; the words are those of the writer of the report. It is seldom that we obtain so much valuable (?) information in fifteen minutes.

BROOKLYN.

INVERSION OF THE UTERUS.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—As the subject of the inversion of the uterus occupies considerable space in the two last numbers of the MEDICAL TIMES, and it being one that ought to be understood by the young practitioners as well as the old, I ask permission to relate a single case, which will embrace all the experience I have ever had in a practice of over forty years.

About seven years ago, I attended a young lady, in labor with her second child. The action of the uterus was slow, and for some time inefficient. After the birth of the child, I waited a suitable time for the spontaneous expulsion of the placenta. I then seized the cord, made a gentle, oscillatory motion, as has been my custom in many cases; also gently pulling by the cord. I found, to my great surprise, that the placenta, womb, and all had slipped through the vagina; the uterus was completely inverted, with the placenta adhering all over the fundus. As this was the first and only case that ever occurred in my practice, I had not much to guide me in its management. I separated the placenta, which was very soft and tender, with my hand, being careful to remove every particle of it. The uterus, in its inverted state, felt like very fine silk or velvet, and was perfectly round in shape.

I returned the uterus by making a dimple, or indentation at the fundus, with the ends of the fingers brought together; and finally, with the hand in a conical form, made gentle and firm pressure, not withdrawing the hand till the uterus was in its natural place, and every inequality of the internal surface removed. This patient, after being confined the usual time by child-bed sickness, recovered without any bad effects or inconvenience, and afterwards was the mother of other children.

In regard to the cause of this case of inversion, my impressions were, at the time of the occurrence of the accident, that the labor being somewhat protracted, reduced, in the first place, the strength and elasticity of the uterus

itself, as well as the adjacent parts; then the inversion was produced by the weight of the placenta attached to the fundus, together with the pulling by the cord, although less force was practised in this than in many other cases. These circumstances combined might have been sufficient cause for the inversion and displacement of the organ.

A. SEARLE, M.D.

ONONDAGO VALLEY, Feb. 21, 1861.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

Dec. 19, 1860.—A short time since, while calling at Duncan, Flockhart & Co., druggists, they informed me that they sold a large amount of *tr. actea racemosa*, obtained from America, for rheumatism. Prof. Simpson introduced it into use here, and extols it highly. I was shown some of Tilden & Co.'s sugar-coated pills, imported by D. F. & Co. They remarked that they could not use the half gr. pills of *ext. nucis vomicæ*, because here that was considered too large a dose.

The *tr. veratri viridis* has been used here but little; the uncertain strength of the *tr.* making it difficult to hit the proper dose. Mr. Edwards to-day, in his lecture upon aneurisms, mentioned the case of an American gentleman, whom he attended some years ago, suffering from an aneurism of the innominate. He took a cast of the external tumor, in this way forming a pad which would press equably upon the aneurism. This pressure causing diminution, it was gradually increased until at last all external tumor was obliterated, and all urgent symptoms alleviated. A year afterwards the man was reported to have died of fever without any return of the tumor. No post-mortem account obtained. A case was mentioned, which occurred here some years ago, exemplifying in a remarkable manner the power of the anastomosing circulation, under the most trying circumstances. A man while living presented no vestige of even a thrill in the arteries of the neck or arms. He lived about a year after he came under observation; how long this state had continued previously no one knew. On post-mortem, all the arteries at the root of the neck were found completely obliterated, except the left carotid, which would just admit an ordinary-sized silver probe. Some time ago a man was admitted into the medical department of the Infirmary apparently suffering from aggravated tonsillitis. I was present when he was seen by the visiting physician. A considerable dulness was noticed on percussion just behind the manubrium sterni. This, while it suggested the possibility of an aneurism, being unsupported by any auscultatory signs, did not prevent the diagnosis of tracheitis. Symptoms of suffocation becoming imminent, tracheotomy was performed high up. Death taking place soon after, post-mortem revealed an aneurism of the aorta, which pressing upon the recurrent laryngeal had given rise to the paroxysms of dyspnoea.

Some time since Prof. Simpson told me that he had advised syphilization in a case of syphilis which had resisted all other treatment, the result being a perfect and speedy cure.

One ward under Prof. Bennett's care is entirely devoted to the treatment of skin diseases. Cases of *favus* of the scalp, which are very common here, are considered by Dr. Bennett to be growths of parasitic fungi on the surface of the skin. Three forms are met with, all three essentially the same, viz. *tenia favosa*, a certain form of *pityriasis* of the scalp, and *mentagra*. I have seen all these forms here. The treatment adopted is—1st, To remove the constitutional derangement; and, 2dly, To employ such topical applications as tend to prevent the development of vegetable life. The affected scalp should be poulticed for several days, until the *favus* crusts are thoroughly softened and fall off. Then the head is carefully shaved, after which it will be found to present a shining, clear surface. Then either cod-liver oil, or some other oil, or a sulphurous acid lotion,

should be applied, and the head covered with an oil silk cap to prevent evaporation, and further exclude the atmospheric air. Prof. Bennett states that the average required duration of this treatment is six weeks. When *favus* is recent and of small extent, it may at once be destroyed by a free use of nitrate of silver as a cautery.

The three squamous eruptions, *psoriasis*, *pityriasis*, and *ichthyosis*, have been frequently shown. They are treated by pitch ointment thoroughly applied for a length of time, and by small doses of Fowler's solution. Oil of cade may be used in *psoriasis* of the scalp. The vesicular eruptions, comprising *eczema*, *herpes*, *scabies*, and *pemphigus*, are treated here with alkaline washes, especially *eczema*. The wash usually employed consists of 3 ss. of carbonate of soda dissolved in 3 xvj. of water. Lint moistened in this is kept constantly applied, covered with oil silk, or gutta percha sheeting, to prevent evaporation. *Scabies* appears to be as readily cured by simple ointment as any other.

The pustular eruptions, consisting of *impetigo*, *ecthyma*, *acne*, and *rupia*, are also treated by the alkaline wash. *Impetigo*, when it attacks the chin, constituting one of the forms of *mentagra*, can be speedily cured by this wash if it is kept constantly applied. The razor must be carefully avoided, sharp scissors used to cut away the beard. The parts must be kept constantly moist with the alkaline wash. When one shaves, flour and warm water in the form of paste must be used in the place of soap. In this way cases of eight or ten years' standing, which have resisted all other treatment, may be effectually cured in a few weeks. *Rupia*, Prof. Bennett contends, occurs always in individuals who have been poisoned by mercury. Hydriodate of potassa and tonic remedies should be used, and the sores poulticed and then treated with water dressing or red wash. If the pustules are numerous, it is better to let the crusts remain, because it is not well to expose too many ulcerated surfaces at once. The papular eruptions, viz. *lichen* and *prurigo*, are common, and are best treated by constant inunction with lard, or, in obstinate cases, with the ung. hyd. precip. alb. Add to these diseases that I have mentioned the *Exanthemata*, consisting of *erythema*, *roseola*, and *urticaria*; the *Tubercule*, consisting of *lepra tuberculosa*, *lupus*, and *molluscum*; the *Macule*, consisting of *lentigo*, *ephelides*, *navi*, and *purpura*; and the *Dermatozoa*, consisting of *entozoon folliculorum*, *acarus*, and *pediculus*; and we complete the list of skin diseases according to Dr. Bennett. The reasons for this simple classification can be found in his work on practical medicine. Suffice it now to say that he "does not pretend to form a classification that is perfect, or even pathological, but one which some experience in the teaching of these diseases has convinced me is useful and practical for the student."

Medical News.

CIRCULAR.—The question of the entire immunity from danger which is claimed for anæsthesia produced by ether, being still under discussion, the Boston Society for Medical Improvement has appointed a Committee "to investigate the alleged deaths from the inhalation of sulphuric ether, and to report thereon." They would request the Medical Profession to communicate such cases, coming within their own observation, as shall serve to this end; giving the place, time, and circumstances of their occurrence, with the mode of inhalation adopted, and, especially, information in regard to the following points:—1st. The kind of ether used, whether pure sulphuric ether, chloric ether, or ether combined with chloroform. 2d. The period after inhalation at which death occurred; also any other facts which may enable them to form an opinion on the subject of their investigations. Committee—Richard M. Hodges, M.D., Chairman; George Hayward, M.D.; Solomon D. Townsend, M.D.; Charles T. Jackson, M.D.; J. Baxter Upham, M.D.

Original Lectures.

LECTURES ON THE PHYSIOLOGY OF THE CRANIAL NERVES.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS.

BY

JOHN C. DALTON, JR., M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

LECTURE VII.

In the two last lectures, gentlemen, we studied the properties and functions of the two branches of the pneumogastric nerve, which are distributed to the pharynx and the larynx. We must remember, however, that at least an equally important distribution of this nerve is that to the lungs and stomach. I mentioned to you at the last lecture that after division of the pneumogastries the most remarkable and prominent symptom exhibited by the animal before death, is a diminution in frequency of the respiratory movements; and I also referred to a particular alteration of structure which takes place in the lungs, and which is to be seen on post-mortem examination, viz. a peculiar consolidation or hepatization of the pulmonary tissue. Now, the explanation of this structural alteration is partly to be sought for in the paralysis of the laryngeal muscles, which must necessarily take place when the pneumogastries are divided in the middle of the neck; since this necessarily includes a division of those fibres which go to form the recurrent laryngeal nerves. Consequently, the larynx being paralysed, the orifice of the glottis cannot be opened for the free admission of air, respiration necessarily becomes imperfect, and the blood is less fully arterialized than in the natural condition. All this would tend to produce stagnation of the pulmonary circulation. Besides this effect, however, there is undoubtedly also a direct influence exerted upon the lungs by division of the pneumogastric nerve. For the pneumogastric, though at first exclusively sensitive, becomes, after its inoculation with certain motor branches, a mixed nerve. In the lungs, accordingly, it is distributed both to the mucous membrane of these organs and to the layer of organic muscular fibres which is situated upon the exterior of the bronchial tubes. The result, then, of division of the pneumogastric nerves is, in the first place, a suspension of that sensitive impression which is conveyed from the lungs to the medulla oblongata, which results in the movements of respiration; and secondly, a direct paralysis of the muscular fibres of the lungs themselves. And undoubtedly the condition in which the lungs are found after death is partly owing to the muscular paralysis caused by division of the motor filaments of the nerve.

If we study the functions of the pneumogastric, on the other hand, as connected with the *stomach*, we find that here also the fibres of the nerve are distributed both to the mucous membrane and muscular coat of the organ. Consequently, after dividing the pneumogastric, we paralyse the sensibility of the gastric mucous membrane, and at the same time destroy the contractile power of the muscular coat. Now, it has been supposed that division of the pneumogastric nerve destroys hunger and thirst, and puts a stop to the secretion of gastric juice. This has been found, however, to be altogether a mistake. I have repeatedly seen dogs, in whom this operation had been performed, eat and drink with considerable avidity. It is also proved that the gastric juice continues to be secreted. But although the mucous membrane of the stomach still possesses the power of secreting the gastric juice, yet in point of fact digestion does not go on after the pneumogastries have been divided. For, in order that digestion may be accomplished, it is not only necessary that the gastric juice be secreted, but also that it be secreted in sufficient abundance and at the proper time when the food is introduced

into the stomach. The sensibility of the gastric mucous membrane being destroyed, the secretion of gastric juice will go on irrespective of the stimulus from the presence of food in the organ. Therefore, after division of the pneumogastric, an insufficient amount of gastric juice will be supplied, although its secretion will not be entirely suspended.

But another and equally important effect of this operation upon the stomach is, that its muscular coat is paralysed. The peristaltic action of the organ is thus suspended; and we already know how much the food depends for its complete digestion upon the peristaltic movements of the walls of the stomach. Practically, therefore, the division of the pneumogastric nerve on both sides suspends the digestive functions in the same degree that it interferes with the action of the lungs. But in each of these instances the effect of the operation is an indirect one, and due to the combined action of several causes. These are the most important points with regard to the functions and properties of the pneumogastric nerve and its various branches.

To-day, gentlemen, I shall terminate this division of the subject, by directing your attention to the last of the cranial nerves, in the order in which we have studied them, viz. the *spinal accessory*. This is a very remarkable nerve, both on account of its peculiar origin and connexions, and of the special character of the functions which belong to it. You will remember that the spinal accessory nerve derives its name from the peculiar fact that while the greater part of its filaments originate from the spinal cord, it yet passes into the cranial cavity, and there unites with other filaments coming from the medulla oblongata; so although in one sense it is a spinal nerve, yet in another sense it may be regarded as accessory to the cranial nerves. The origin and course of this nerve are as follows:—It arises by a number of delicate filaments from the side of the cervical portion of the spinal cord, between the anterior and posterior roots of the upper five or six cervical nerves. These filaments pass upwards, uniting successively with each other and forming a single bundle which enters the cranial cavity, by the foramen magnum, on the side of the medulla oblongata. In this situation it is joined by another set of filaments coming from the lateral region of the medulla oblongata itself. The nerve accordingly originates by two divisions, one coming from the spinal cord, the other from the medulla oblongata.

These two divisions pass together from within outwards, forming the trunk of the spinal accessory, and then leave the cranial cavity by the same canal which also gives passage to the glosso-pharyngeal nerve and the pneumogastric. Now the spinal accessory, after pursuing its course in this way, immediately after its emergence from the jugular canal divides into two very important branches, an internal and an external. The internal branch is also called the *anastomotic* branch; because it immediately joins the trunk of the pneumogastric, and thus forms an exceedingly important inoculation between the two nerves. The external or *muscular* branch of the spinal accessory passes directly from above downwards, and, in the upper part of the neck, separates into its principal divisions, which are distributed to the sterno-mastoid and trapezius muscles. Such is the anatomy of the spinal accessory nerve. In this freshly-dissected preparation you will see exhibited all the principal points of its origin and distribution.

Now, in regard to the properties and functions of this nerve. We will examine it for this purpose by the same method which we have adopted in the study of the other cranial nerves. What is the effect produced upon this nerve by mechanical irritation and division? There is no doubt whatever, in the first place, that the spinal accessory is a motor nerve. For if we irritate it near its origin, the irritation gives rise to a contraction of the muscles to which it is distributed, and more particularly to the sterno-mastoid and trapezius on the lateral and posterior regions of the neck. This result, however, only shows the properties of the nerve as regards its external or muscular

branch. In order to ascertain the character and functions of the internal or anastomotic branch, by which it is connected with the pneumogastric, recourse must be had to a different mode of investigation. We must divide all the different origins of the spinal accessory and ascertain in this way what properties, previously belonging to the pneumogastric, that nerve has lost in consequence of the destruction of the spinal accessory. For you see at once that this nerve is one of the most important sources of motor filaments for the pneumogastric. Now the operation of dividing the spinal accessory, as it was first practised, is a very difficult and dangerous one. This mode was, to open the space between the occiput and the atlas, and, by reaching the nerve in this situation, to divide it or its attachments. Of course in doing this operation a very deep and extensive wound was required; the cerebro-spinal fluid was allowed to escape; the membranes of the cord were injured, and there was always a considerable degree of hemorrhage. Very few satisfactory results, accordingly, were obtained from these experiments. Bernard, however, a few years ago, contrived a new method of destroying the spinal accessory, which has been much more successful than the other. This method consists in following the spinal accessory by dissection from without inwards, up to the situation of its anastomotic branch, when the trunk of the nerve is seized with a pair of forceps and torn away from its attachments. An incision is made immediately below and behind the external ear, in such a manner as to strike the muscular branch of the nerve, as it penetrates the sterno-mastoid muscle from below. Having reached this point, the dissection is continued, from without inwards and from below upwards, until near the external margin of the jugular canal. Then the nerve, as it emerges from this canal, is firmly grasped with the blades of a forceps, and a gentle but steady and continuous traction is made upon it in the direction of its fibres. Very soon, a peculiar crackling sensation is communicated to the hand holding the forceps, in consequence of the giving way of the fibres of origin of the nerve. The whole nerve then comes away in a long, slender, and tapering filament, having been drawn out from nearly the whole length of the cervical portion of the spinal cord.

I have done this operation several times in the manner just described; and although it is somewhat difficult to perform, it is much more successful in its results than the operation which was formerly in use. To-day I did this experiment upon a cat; and you see here the two slender filaments which were drawn away through the jugular canals. Now when the operation is successful, it is followed by a very peculiar and striking result. The pneumogastric nerve, which receives so important a branch of communication from the spinal accessory, still does not lose all its motor properties. The various organs to which the pneumogastric is distributed still possess the power of motion in general. But some of the *particular movements* which they could previously perform they have now lost the power to accomplish. The larynx, for example, is one of the most important organs to which the pneumogastric is distributed, and the movements of this organ are affected in a very peculiar way by division of the spinal accessory. The principal effect of the operation is an *entire and complete loss of voice*. The cat is one of the best animals to operate upon for this purpose, because the nerve yields with comparative readiness; whereas in the dog, the amount of fibrous tissue around it is so great, and its consistency so firm, that the trunk of the nerve usually breaks off, instead of coming away by the roots. This sometimes happens also in the cat, but less frequently than in the dog. The voice of the cat, besides, is peculiarly well adapted for experiment, since it is so strongly marked in character, and so easily excited. This is the animal upon which the operation was done to-day. We can see that the principal, or at least the most striking effect, here, as usual, is that the voice is lost. Now, how are we to explain this result of dividing the spinal accessory? This is an instance in which the distribution of

certain nervous filaments, which could never be traced by the scalpel of the anatomist, is made evident by the result of physiological experiment. We know that the pneumogastric nerve, while passing down the neck, contains motor filaments derived from various sources, and that some of these filaments pass to the muscles of the larynx. We also know that the muscles of the larynx take part both in the formation of the voice and in the movements of respiration. Now we could never distinguish by the scalpel the motor filaments of the pneumogastric which are derived from the spinal accessory, from those coming from the facial, the hypo-glossal, or the cervical spinal nerves; for they are so inextricably entangled that a mechanical dissection would be impossible. Experiment, however, shows that certain of these motor filaments come altogether from the spinal accessory. For, the spinal accessory alone being destroyed, and the other motor nerves being left entire, the larynx loses completely its vocal movements. Another remarkable circumstance in this respect is that, after the destruction or division of the spinal accessory, although the laryngeal muscles have lost the power of *closing* the glottis in such a way as to produce a vocal sound, they still retain the power of *opening* it, in order to accomplish the movements of respiration. The muscles of the larynx, therefore, have two offices to perform; one connected with respiration, the other with the voice. The nervous filaments, accordingly, which supply the larynx, come from different sources, corresponding with the two different functions which the organ is required to perform. This is a very fair illustration of a principle which was first laid down by Sir Charles Bell, viz. that whenever an organ receives its nervous filaments from two different sources, this arrangement is not intended to increase its activity in the performance of one function, but to *enable it to perform two distinct and different functions*. That is evidently the case here. The larynx having two different functions to perform, its muscles accordingly are supplied by different nervous filaments. Those coming from other motor nerves excite in it the movements of respiration, while those derived from the spinal accessory enable it to produce the voice.

But besides the internal or anastomotic branch of the spinal accessory, there is, as I have mentioned, an external or muscular branch. The relation of these two branches to each other is somewhat important. I have said that the spinal accessory has two different origins, one from the cervical portion of the spinal cord, and another from the lateral portion of the medulla oblongata. Now it is found that the fibres which come from the side of the medulla oblongata are exclusively destined to the formation of the internal or anastomotic branch of the nerve; whereas the filaments coming from the side of the spinal cord go to form its external or muscular branch. Consequently, we can separate by experiment these two portions of the nerve from each other. If we were to divide the cervical portion of the spinal accessory, leaving the medullary portion untouched, we should paralyse the sterno-mastoid and trapezius muscles, but we should not destroy the vocal movements of the larynx, because the pneumogastric would still retain all the motor filaments which it derives from the spinal accessory. Now this very thing happened to me no longer ago than to-day, in doing the operation for extraction of the spinal accessory nerve. If you attempt this operation, you will find that its principal difficulty is in taking a firm hold of the trunk of the nerve near enough to the point at which it emerges from the jugular canal. This situation is of course a very deep one, the nerves are encircled by a multitude of blood-vessels, and they also curl around each other in such a way that it requires some care to follow out the separate trunks and branches. Now, in doing the operation upon one of these animals to-day, I drew the nerve out on both sides, in the form of a long tapering filament, and supposed that I had secured the whole of its fibres, and that the effect of the operation would be complete. But on trying the animal afterwards, the vocal sounds were produced with a natural degree of intensity. I therefore con-

cluded that I had succeeded in extracting only the cervical portion of the nerve, leaving its internal or anastomatic portion in place. On making an examination afterwards, I found that such had really been the case. The cervical filaments of origin of the spinal accessory were gone on both sides, but those coming from the medulla oblongata remained uninjured.

Such are the characters and properties of the anastomatic branch of the spinal accessory. Now let us see what are the functions of the external or muscular branch; which is distributed to the sterno-mastoid and trapezius. The filaments of this branch are motor in their character; for if irritated in any part of their course by galvano-electricity, a convulsive action is produced in the muscles below. These muscles are supplied also by motor filaments from the anterior branches of the cervical nerves. Here, then, as in the case of the larynx, we have two sets of nerves supplying the same organs, and for a similar reason, viz. the performance of two different functions. One of these functions is the performance of the ordinary voluntary movements; the other function is connected with that of respiration. The nature of this second function of the nerve was supposed by Sir Charles Bell to be one of assistance to the respiratory movements. That is to say, he supposed the nerve to excite these muscles and bring them into play, in connexion with the other respiratory muscles, when the function of respiration required to be vigorously performed. He therefore called it an accessory nerve of respiration. It is found, however, that the effect of tearing out the whole of the spinal accessory nerve on both sides is somewhat different from what would be expected if Sir Charles Bell's opinion were the correct one. It is now believed, and I think with justice, that the action of the spinal accessory nerve, in every instance, is not an assistant, but an *antagonistic* action to respiration. That is certainly the case with regard to its influence upon the larynx; for the movement of inspiration cannot be performed at the same time with the exercise of the voice. The glottis is opened in inspiration, but it is closed in expiration while the vocal sound is produced. Hence these two functions, of the voice and of respiration, are incompatible with each other. In other words, those movements of the laryngeal muscles which act in the production of the voice, and which are presided over by the internal or anastomatic branch of the spinal accessory, are incompatible with the respiratory movements, which are provided for by filaments coming from other motor nerves. The same thing is the case with the sterno-mastoid and trapezius muscles. For there are certain movements of the voluntary muscles, which are incompatible with respiration; and one class of these movements are those belonging to steady and violent muscular efforts. Remember, if you please, what we instinctively do, when we are about to commence any prolonged muscular effort. The first thing is to take a long, full, deep inspiration, by which the chest is thoroughly expanded. Then the spinal column and all the movable portions of the skeleton are firmly fixed, for the purpose of giving the muscles, which we are to use, steady points of support for their action. This is the object which we seek to accomplish by the expansion of the chest. The ribs are raised and held in position by the intercostal muscles and the scaleni, and the head and neck are fixed by the steady contraction of the sterno-mastoid and trapezius muscles. Then, no further inspiration takes place while the muscular effort continues. This is the manner in which the external branch of the spinal accessory is thought to act in opposition to the process of respiration; not by assisting but by suspending the respiratory movements, in order to allow the performance of another function, with which the movements of respiration are, for the time, incompatible.

According to Velpeau, the surgeon should avoid giving chloroform to a person in a sitting position, or in an ill-ventilated apartment. He should give it uninterruptedly, and watch carefully the pulse and the respiration. Accidents, under these conditions, are rare.

Original Communications.

DESCRIPTION AND USE OF THE LARYNGOSCOPE.

BY W. HENRY CHURCH, M.D.,

SURGEON TO BELLEVUE HOSPITAL.

(Being a paper read before the Academy of Medicine, March 6, 1860.)

VISUAL EXAMINATION of the interior of the larynx is not by any means a novel conception. Robert Liston, in the fourth edition of his *Practical Surgery*, when upon the subject of inflammation, oedema, and ulceration about the epiglottis and entrance of the larynx, uses the following language: "The existence of this swelling may often be ascertained by a careful examination with the fingers; and a view of the parts may sometimes be obtained by means of a speculum—such a glass as is used by dentists, on a long stalk, previously dipped in hot water, introduced with its reflecting surface downwards, and carried well into the fauces." As this edition was published in 1846, his investigations must have been prior to that date. With that simple instrument and a strong sunlight he could undoubtedly see those parts, and the only matter of surprise is that such a man as Liston, having reached this point should have neglected to carry his investigations further. Another English physician, Garcia in 1855, published a paper demonstrating his *Observations on the Human Voice*. In describing his method he says, "It consists in placing a little mirror, fixed on a long handle suitably bent, in the throat of the patient experimented on, against the soft palate and uvula. The party ought to turn himself towards the sun, so that the luminous rays falling on the little mirror may be reflected on the larynx. If the observer experiments on himself, he ought, by means of a second mirror, to receive the rays of the sun and direct them on the mirror, which is placed against the uvula." He used the small mirror attached to the end of a flexible handle, as we do, and when experimenting upon himself employed a second mirror to concentrate the rays of the sun; whereas, had he made use of it in examining the patient, he would, probably, have recognised the advantages of such an arrangement.

All these investigations were allowed to sink into oblivion until the summer of 1857, when M. Turck, physician in chief to the Vienna General Hospital, during his service made some experiments with the laryngoscope, and in the year 1858 published several papers upon the subject. In the winter of 1857 and 1858, Czermak, as he says himself, first began his laryngoscopical examinations, for the purpose of getting a clear understanding of the manner in which certain sounds were produced, called *gutturales verae*, then to repeat and complete Garcia's physiological experiments. But he goes on to say that he very soon appreciated, on the employment of artificial light, all the advantages of the instrument which he has commenced to use.

So little confidence was placed in the instrument that when I first began the study many physicians pronounced it useless, or at all events very much overrated, and I must confess that my early efforts were fast impressing my mind with the same conviction, when one day I was enabled to recognise the epiglottis and some of the parts adjacent. This was something, but as yet I had discovered nothing that may not often be exposed to the eye unaided by instruments. Encouraged I continued my investigations with renewed confidence, until one clear bright morning when I succeeded in getting a very accurate view of all the parts at the entrance of the trachea, and from that time have steadily improved in the management of the instrument, the patient, and the sun's rays.

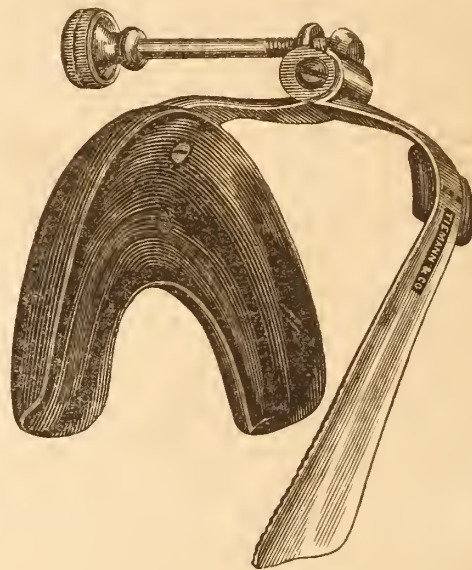
Before taking up the use of the instrument, permit me to refer briefly to the anatomy about the throat. The larynx, to which our attention will be given, is situated at

the forepart of the neck between the trachea and the tongue. It receives its supply of nerves principally from the pneumogastric (or par vagum), purely a nerve of sensation, from its origin, to the ganglion of the pneumogastric nerve. Immediately below this point it receives filaments from five motor nerves, the spinal accessory, facial, sublingual, and the anterior branches of the first and second cervical nerves. Among the most important branches are the two laryngeal nerves, the superior of which is the principal sensitive nerve of the larynx; its division, therefore, destroys sensibility in the mucous membrane, but paralyses only one muscle, the crico-thyroid. The inferior laryngeal branch is given off, just after the pneumogastric has entered the cavity of the chest. It curves round the subclavian artery on the right side, and the arch of the aorta on the left, to ascend in the groove between the trachea and oesophagus. It enters the larynx between the cricoid and posterior edge of the thyroid cartilages, to be distributed to all the muscles of that organ, with one exception. Exclusively muscular, its division is followed by paralysis of all the muscles of the larynx, with the single exception of the crico-thyroid, which, as you are aware, is supplied from the inferior laryngeal nerve. The cartilages of the larynx are the thyroid, cricoid, two arytenoid, and the epiglottis. To these are attached the eight muscles of that organ. The five larger are the muscles of the chordæ vocales, the crico-thyroid, crico-arytenoideus posticus, crico-arytenoideus lateralis, thyro-arytenoideus, and the arytenoideus. The crico-thyroid and arytenoid muscles are contractors of the rima glottidis; the crico-arytenoidei postici and laterales being dilators of the same part. I hold in my hand a drawing which represents a tongue, larynx, and part of the trachea. The larynx and trachea have been laid open by a longitudinal incision along their posterior walls, the edges of the incised parts being separated, so as to expose the internal structures. Beginning at the epiglottis above, we follow its posterior surface until we reach the cavity of the larynx, where may be seen represented the superior or false vocal chords, immediately below this point the ventricle of the larynx, and then we reach the chordæ vocales proper, and rima glottidis.

From the point where the mirror is introduced into the posterior part of the pharynx to the upper edge of the epiglottis is quite one inch—from the latter point to the vocal chord is one inch and a half more, and I feel confident that I have seen and recognised the rings of the trachea three inches beyond the rima glottidis—in all a distance of five inches and a half, which must be nearly, if not quite, down to a point opposite the upper border of the sternum. At all events, is not this far enough for all practical purposes?

We will now take up the use of the laryngoscope. In Czermak's original instrument the reflector is so constructed that it may be supported between the teeth, and here is the little mirror that reveals to the eye parts in our economy that never have been seen, before its use, in the human subject whilst living. If the sunlight is to be used, you place the patient with his or her back towards that luminary, then seat yourself opposite, so that the face may be brought within a foot of the patient's. Being thus arranged you are prepared to begin the operation. Placing the handle of the reflector between your teeth, so fix the head as to concentrate the rays of the sun, and throw them into the posterior part of the throat, as boys with the sun-glass concentrate them on one point to create heat. I have frequently been obliged to desist for a few moments, owing to the intense heat which it caused in the posterior part of the pharynx. This first manipulation is important, and requires practice, in order that you may secure the full intensity of the light. Having placed the mirror in hot water, wipe it next with the left hand, introduce a spatula and depress the tongue gently but firmly, and then with the right hand you introduce the mirror behind, to the side, or in front of the palate, just as you find it most convenient to bring into view the parts that you wish to see. The first

modification of the mirror that I noticed was supporting it upon a frame similar to those used for spectacles; and here is one arranged by Tiemann & Co., of this city. They have attached a handle to the reflector by means of the ball-and-socket joint, and to this handle is fastened an elastic band which will encircle the head, and support the reflector in front of the eye, enabling you to place it as you find most advantageous. Here also is a glass mirror which they have just finished. While using the instrument to make local applications, I found that giving the spatula to an assistant to depress the tongue caused much embarrassment. It occurred to me that a spatula might be so arranged as to fasten upon the lower jaw and retain itself in situ, at the same time depressing the tongue. I described my wishes to Mr. Stuhlmann of the firm of Tiemann & Co., who furnished me with this instrument. A piece of hard rubber or



metal is shaped like the lower jaw, from which an arm with a hinge joint runs up to the level of the teeth; to this is attached a spatula. After introducing the spatula into the mouth, you turn this screw, which depresses it, forcing the tongue downwards and forwards; with this the mouth may be opened and shut without the slightest inconvenience or displacement of the instrument.

You can readily imagine that it requires patience and practice to use an instrument where you are obliged, at the same moment, to manage the rays of the sun, two reflectors, your own head, eyes, and hands, as well as the patient's head and throat—but that it can be done I believe. There must be medical gentlemen here present who will testify to having seen the vocal chords and rima glottidis in more than one patient. In these patients I distinctly saw the two arytenoid cartilages as they came together in articulation, and at the same moment the vocal chords could be seen as they were approximated and separated in pronouncing *eh* and *ah*. In one I also discovered a small point of ulceration on the inner surface of the right arytenoid cartilage, and in this plate are represented the same parts as they appeared after recovery. That it is not an imagination of my own is apparent from my asking Dr. John W. Greene, one of the attending physicians of Bellevue Hospital, why he represented that slight depression in his drawing? He answered that it was as he saw it, and then I remembered that there was the point of ulceration. At the next examination those parts appeared healthy. The following condition of other parts in the throat could be easily recognised; the patient at the time suffering from constitutional syphilis, the epiglottis was contracted, thickened, and ulceration had appeared upon its edges, with all the tissues of the larynx

and adjacent parts of the pharynx assuming the characteristic appearance of the disease.

Dr. Dalton, in his Human Physiology, says that "The general sensibility of the œsophagus is very slight, as compared with that of the integuments, or even of the mucous membrane near the exterior." I have been surprised to find how little irritation the introduction of the mirror causes. There is no necessity for irritating the throat, or giving pain to the patient. Do not hurry, do not be rough; if the throat resists wait patiently until it gets confidence and finds that you mean no harm, when it will be quiet and patient. The first advantage to be derived from the use of the instrument is the power to bring the diseased parts of the throat directly before the eye, enabling us to determine with certainty their location and extent. The second, and almost as important, is the ability to satisfy ourselves that the disease has not attacked certain parts, where heretofore, I doubt not, we have often employed local treatment when actually no disease did exist. Thirdly, to ascertain that all the parts about the larynx are restored to a healthy condition, more important to public speakers and singers, enabling them to determine when they may with safety return to their usual avocations; and fourthly, the advantage of seeing the parts to which we make local applications must be too apparent to the mind of every member of our profession to require comment. Almost the first patient that I treated was a girl about sixteen years of age, who for the last three winters had suffered with soreness of the throat, during the whole winter up to the warm weather of May, before she would get relief—each winter for from three to four weeks, she lost her voice. This winter the aphonia again returned, during the existence of which I made the first examination of her throat, and found all the parts at the base of the tongue in a hyperæmic condition, red, and very much swollen with inflammation and œdema of the aryteno-epiglottidean folds of mucous membrane; which inflammation extended to, and involved the superior vocal chords; the bright and shining appearance of the true vocal chords was lost, and they appeared as if enveloped in a cloud or haze. Having saturated a large pencil of camel's hair with a solution of tannin in glycerine, I passed it over the epiglottis and held it for a moment upon the entrance of the glottis, thence sweeping it all about the base of the tongue. The next day she expressed herself as being very much relieved, and could speak loud enough to be heard across a large room. Three days later, the swelling at base of the tongue subsided, inflammation in the larynx diminished, and the surface of the trachea beyond the vocal chords was covered with healthy pus. Tinct. of iodine applied to the same parts, in the same manner as the previous application. Next morning the voice was perfectly restored, and the throat more comfortable than it had been for a long time. Twelve days after the last examination, although the patient did not complain of the throat, there was still inflammation at the base of the tongue and along the aryteno-epiglottidean folds of mucous membrane. Having saturated the smallest camel's hair pencil with a solution of nit. of silver, I for the first time introduced it, guided by the laryngoscope, when I could distinctly see the pencil as it passed along the base of the tongue, between it and the epiglottis, thence along the mucous membrane from the epiglottis to the arytenoid cartilage, leaving a white mark in its track.

That patient is now perfectly well.

Another lady, twenty years since, while tending her children, sick with scarlet fever, contracted a severe inflammation of the throat, which has continued to trouble her more or less since that time. Although robust and apparently healthy, her vital energies are evidently below par, suffering from nervousness, depression, loss of energy, sleeplessness, loss of appetite, and a tired feeling at the front part of the throat, in the region of the os hyoides. Looking into the throat, the pharynx, as far as it can be seen, appears perfectly healthy. Upon using the laryngoscope, the follicles at the base of the tongue can be seen enlarged,

and all the glands of the same part are hypertrophied, evidently the result of long standing inflammation; the extremity of the epiglottis curved towards the base of the tongue, having the appearance of being so deformed by contraction of the frenum. The larynx appeared perfectly healthy. Applied the tannin and glycerine to the diseased parts. At the next visit the patient said she had slept better, felt better, and for the first time in some years had moisture upon her surface, which heretofore had been uncomfortably dry and parched. This patient is still improving, although not yet well.

I will refer to a few points in the history of two or three other patients, which may possess some interest. In a person suffering from phthisis pulmonalis, with ulceration upon the left vocal chord, I passed the long curved point of a syringe down until it could be seen at the entrance of the larynx, then injected into the glottis about ten drops of a five-grain solution of nitrate of silver, which excited the same irritation that the entrance of any fluid into the air-passage causes; this was soon relieved, and the patient says he has suffered less pain in swallowing, and is much more comfortable. At the next examination, the ulceration upon the vocal chord had disappeared.

In another case of consumption, with aphonia, I found a vegetation the size of a pea at the base of the epiglottis, between two folds of the arytenoid membrane. Nothing more was found that could account for the loss of voice.

When we can discover any method by which disease may be brought under the immediate supervision of the eye, we accomplish just so much towards bringing our profession to an exact science; and here is a new field opened to our view through the laryngoscope, made practical by Prof. Czermak, now of Prague, in Bohemia; yet, so far as I can learn, it is not purely an invention of his own, but like almost all useful mechanical improvements, must drag through a stage of probation until at last taken up by the man created for it, who carries it suddenly to perfection—so suddenly, that half the world looks on with incredulity, whilst the other half waits patiently for results. Although the instrument is not yet perfect, in all our improvements we can but play the part of satellites to make more brilliant the brightness of his star: he has passed through the trials and tribulations successfully—let him reap the just reward.

VOMITING IN PREGNANCY:

CONSIDERED ESPECIALLY IN REGARD TO ETIOLOGY.

By WM. MASON TURNER, M.D.,

PETERSBURG, VA.

MORNING-SICKNESS is a troublesome affliction—one I have often observed and studied, though my practice does not date back as far as that of some senior physicians. Before and since, however, I received my diploma in 1858, I have been much interested in tracing the disorder to its cause, and therefrom deducing some rational mode of treatment. My observations, thus far, have been made in American hospitals, French hospitals (and where are better opportunities?), and in private practice in this city. Several etiologies have been advanced by different writers for morning-sickness—most of them have the general basis—*sympathy*: that is—that the womb being in a certain condition (enlarged) the stomach is sympathetically affected through the medium of the nerves—hence the vomiting. This is put in a very few words. Dr. Hodge, if I mistake not, holds this opinion; in other words, I understand him to mean, that unless the uterus was in its pregnant condition, this mysterious, sympathetic action could not be exerted on the stomach, and we could have no vomiting. What would bear out this reasoning is, that in the unimpregnated female morning-sickness is not present. This may be said to be the fact, generally speaking. I have advanced this gratuitously, for all who give as a reason for morning-sickness—*sympathy*. If I do not err, Dr. Meigs,

who, the oracle of midwifery, as I esteem him, entertains the same views—views to which I most sincerely subscribe, restricting myself to a *different explanation* as regards the *wherefore*. The following are Dr. Meigs's own words: "The reproductive organs have a direct connexion with the cerebro-spinal and the ganglionic system of innervations. There is, therefore, no part nor parcel of the economy, into relation with which it cannot, under certain states of health, be brought; they are among the most powerful disturbers of the complacency of the organisms. They constitute an *imperium in imperio*, whose behests are not to be disobeyed. These organs can disturb the brain, the respiration, the digestion, the circulation, the secretions, the nutrition."

Judging from this passage, I should most assuredly think, Dr. Meigs ascribes morning-nausea and vomiting to sympathy of the stomach with the uterus. This then is the broad basis of the explanation of the affection which heads this article, as advanced by two of the most learned obstetricians on the American continent. The French accoucheur, M. Cazeaux, is the most emphatic of all in regard to *cause*—that is, at one time, and under certain circumstances alone can he account for it—that one time is in advanced gestation, when "*on peut les attribuer (the vomitings) avec quelque raison à la pression à la gêne toute mécanique que l'utérus, dont le fond s'élève jusque dans la région épigastrique, exerce sur l'estomac; mais (he goes on to state) dans les premiers jours de la grossesse, ils sont beaucoup plus difficiles à expliquer.*" We see then, at a glance, M. Cazeaux's ideas, and such is the state of knowledge shown by three of the most renowned obstetricians in the world. But of late an addition has been made to this stock of information, and another explanation been given, which the *advancer* of it thinks set all doubt for ever at rest. He has found the true *casus*, and speaks confidently in the premises. The authority is high and good, however, and we must give Dr. Inman credit for the *plausibility* at least, of his *theory*—it is nothing more, and an extremely vague one at that, I think. The Dr., in the *British Medical Review*, of March 24th, 1860, in regard to the cause of morning-sickness, says: "As the symptom in question does not occur in perfectly healthy and strong women, we infer that its occurrence depends upon some deterioration of vital power. As deterioration of vital power involves a greater or less deterioration in all organs of the body, we infer that in the cases in question there is deficiency of vital power in the brain and in the stomach." I object to this explanation almost *in toto*—unless Dr. Inman refers, by the expression, "deficiency of vital power in the brain," to a *temporary* deficit. This paper, therefore, is written more with an aim to the refutation of the ground held by Dr. Inman, than with any idea to press anything as original, respecting the etiology of morning-sickness. Before proceeding to my objections, which, by-the-by, can be stated almost in a breath, I will notice one or two collateral points in regard to pregnancy vomitings. At one time it was seriously, and for a long period strongly, contended that *albuminuria* was the occasion of the sickness. But that opinion is negatived by the fact that *most* vomiting is seen in the *earlier* stages of gestation, whereas albuminuria is only detected in the *latter* stages. *Epidemic influence* has also been advanced as a cause, but without sufficient experimental proof for a foundation, as has been admitted. It has been observed, by Bennett, of England, I believe, that in many cases of vomiting in pregnancy, he has found, on specular examination, ulcerations of the womb, its neck, or elsewhere; hence, by what train of deduction I know not, he attributes the nausea to the ulcerated condition of the uterus. Bennett even goes so far as to say, "Since my attention has been fixed on this point, I *most always find* ulcerations of the neck (of the womb) in these cases (rebellious) of vomiting." Again, he is "persuaded that inflammatory conditions of the neck of the uterus are the causes of those diseases of the *heart* which often carry women to the gates of death." I simply give this latter quotation *en passant*. I

readily infer from my first quotation that Dr. Bennett gives as a cause for morning-sickness, *inflammation of the neck of the uterus*. But how many cases are there of ulcerated and inflammatory conditions of the womb in which we have no vomiting? For instance, in all leucorrhœas—in prolapsus, anteversion, or retroflexion—in cases of badly-fitting pessary—in all of which we find not only inflamed and ulcerated conditions of the womb, but sometimes, nay often, actual sloughing away of parts near the os. I have seen these conditions existing, even among maidens of sixteen and eighteen years—yet nowhere was morning-sickness present. Under certain circumstances, however, I readily see how all of this may happen, as I will hereafter state. Cazeaux says he has witnessed obstinate morning-sickness among girls at each periodical menstrual recurrence. He does not, however, pretend especially to account for it, simply referring to it as being a case similar in result to pregnancy, these manifestly depending on a peculiar condition of the womb. Another singular fact, but none the less true, mentioned by M. Cazeaux, is, that very often we find women who never suffered with morning-sickness during their first pregnancies at all, suffering very much the fifth, sixth, or seventh. This, and what I have stated above in regard to the menstrual flow, ulceration, etc., I think applicable in a measure. I will refer to it anon. Mr. Inman says substantially that morning sickness is not a *natural affection*; he also says that we observe it oftener among city females than among women of the rural districts—his remark being that "it is rare among the healthiest of the rural plantations." I contend that the disorder is a most natural affection. My reasons will be seen when I come to the *cause*; and when we do not find morning sickness, which I willingly admit often to be the case—it is due to one or more of these circumstances—(1) to *smallness of fetus*; (2) to *excessive capacity*, as regards abdominal, uterine, and pelvic region; and (3) to *non-susceptibility*. When the fetus is too small to give enlargement to the womb, and when the abdominal and pelvic spaces are naturally large—in either of which cases there is little or no *pressure on blood-vessels*—then, I argue, we will not find vomiting as an attendant symptom on pregnancy. In some cases, also, there might be a sluggishness, a decided unsusceptibility as regards the brain, stomach, and other viscera. In such cases there is no general sympathy, no vomiting. We find this true in regard to some persons who go to sea. In such cases, the sluggishness amounts to an *inactivity*, which is synonymous with *unhealthy*—the very condition in which Dr. Inman finds most cases which differ from nausea and vomiting in pregnancy. In combating the doctor's idea as regards town and country women, I can instance a single illustration, which I am persuaded completely overwhelms his position, in regard to the *vital-force-deterioration* theory. I have visited many plantations in the South, "far removed from the bustle of city life," and though I *fail, ridiculously*, perhaps, I have seen many pregnant negro women on those plantations. *With scarcely an exception, morning sickness was present*. So true is this, as I and all know who live in a slave state, that the uneducated blacks esteem this *green sickness* as their most infallible sign as to pregnancy, their only other sign being the stoppage of the menses, and of course enlargement. Yet so far as vital force is concerned, I am convinced that the hard-working, hearty, and robust negress, will compare most favorably with the languishing lady of the city. I have seen Irish women, healthy, strong, and active, who suffered so much from morning sickness, that they applied to the surgeon at the clinic for medical treatment. Their vital force, their otherwise healthy organisms, could not be questioned. If, as I have before remarked, Dr. Inman refers to a *temporary* deficiency of vital force, then I agree with him; but I do not think he means this, for his own words lead us to understand him as saying, *unhealthy* or *city*, or delicate women suffer most; those who are healthiest, in rural plantations, who have most vital force (and less vital deterioration), suffer least.

This brings me to what I very humbly, yet fully, believe to be the correct cause—as the only cause which will reasonably explain the phenomena which are incidental to pregnancy, as regards morning sickness. The ultimate and prime cause of this vomiting is, in my opinion, the *pressure exercised on the blood-vessels by the gravid uterus*. Irregularity of circulation is thus increased. We find oedema of the lower extremities, *proving* this fact. Why should not the upper portion of the body suffer likewise from the same cause? The brain, for example, *must in a measure be improperly emptied and badly irrigated*. Its function is disordered—hence the derangement of stomach through sympathetic media. This seems to me to be rational at least, for by it can be explained *all cases* of morning sickness, and all absence of it. *Pressure on the blood-vessels*, I consider, then, the *prime cause of vomiting in pregnancy*. We know that the womb, by pressure on the vena cava descendens, does create an oedema of the lower extremities; also, we have neuralgia produced by the pressure of same organs, on the nerves, sacral plexus, &c. It is very natural that the sickness should be so decided in the morning, for the recumbent posture is eminently favorable for bringing about the pressure as mentioned. The feeling of nausea passes away as the patient stirs about, and as the circulation becomes improved and more general. In some cases where there is extreme pelvic and abdominal contraction or *narrowness*, as I conceive it—when the pressure is more or less constantly exercised—then we have a persistency in the vomitings. So, on the contrary, where there is excess in abdominal and pelvic capacity, or where the fœtus is small, there is not pressure in either case, and *par consequent*, no vomiting. These statements can be verified, and *are* verified, by our own experience. So far as regards the nausea which is present in ulcerated conditions of the neck of the uterus, at menstrual periods, and in malpositions generally, I think all can be satisfactorily explained by my hypothesis of *pressure*; for in most of these cases we find the womb—sometimes incredibly—engorged and enlarged. I recollect a case in Velpeau's ward in La Charité Hospital. The woman suffered very much; had violent pain in lumbar region, and excessive vomitings all the time. Yet by causing that woman to lie on her belly, with the pelvis raised above the level of the head, I have seen the most excruciating neuralgia, and the most obstinate vomitings, relieved as if by magic. The woman had a retroflexion, and great enlargement of the uterus, and I attribute the relief she experienced to the *removal of pressure*.

I advance these views, of course, founded chiefly on a hypothetical basis. In my own mind I am convinced it is a basis for sound judgment. This entire article was first suggested by Dr. Inman's idea of "*deterioration of vital force*," which did not strike me very favorably. What I have written, has been done with one sole aim: to endeavor to throw some light on a topic which has for years interested medical men. My mite is humbly offered to the treasury of that PROFESSION I DEEM THE NOBLEST IN THE LAND.

POISONING BY INFUSION OF TANSY.

BY JOHN E. PENDLETON, M.D.,

OF HARTFORD, KENTUCKY.

On the 27th of December last I was called to see a negro servant girl, æt. 21, the property of Mrs. T. When I arrived, only a few moments after the summons, I found her sitting upon a chair apparently without concern.

Upon inquiry as to the cause of the alarm, I was informed that she had started on a visit to a neighbor's with a chair on her shoulders, that she had used language unnatural to her, had resisted entreaty to return to the house, and had just been forcibly brought home. The pulse was slightly increased in volume, but a little slower than natural. Tongue not altered, secretions healthy, and skin moist. Upon questioning her, I detected an indifference to my

interrogatories and incoherences in her replies to the point inquired after. Respiration, fourteen to the minute, with some labor of the respiratory muscles. Pupils contracted, with a duskiess of the countenance. The features seemed fixed, giving to the physiognomy an expression of deep solemnity. Surface below its normal temperature, still cooler towards the extremities. The abdomen was enlarged as high as the umbilicus, which proved, upon auscultation, to be the result of pregnancy.

Prescribed magnesiae sulph. ʒj., to be followed in three hours by an enema; to be placed in bed with ice to the head. Four hours later, found her perfectly comatose, pulse beating sixty to the minute, with a peculiar measured beat. General paralysis of all voluntary motion including the muscles of deglutition. Breathing, twelve to the minute, a cold clammy perspiration covered the surface, mucus had collected in the larynx and fauces which very much disturbed respiration. I was now informed that two hours previous to my first visit, the girl had taken a large quantity of strong decoction of tansy, for the purpose of procuring abortion, which fact had been faithfully kept in the possession of a negress who was her confidante. About that time, the patient began to vomit, which I assisted as much as possible by the introduction of ipecac and tepid water into the stomach. The green aromatic tea was ejected copiously, containing bits of the leaves large enough to have designated, without additional testimony, the offending agent, which were readily recognised and identified by non-professional persons present. But it was too late, a sufficient quantity of the poisonous principle of the herb was already floating in the life current. She died twenty-six hours after taking the fatal draught. The heart continued its measured beat to the last, becoming slower and slower, until it ceased to pulsate altogether. Stimulants, brandy, quinia, and ammonia, were employed without producing the slightest observable alteration in the circulation.

The womb remained perfectly quiet, no evidence of contractile movement was exhibited at any time after the first four hours, and if any occurred at any time at all, it effected no change in the os uteri. Nor was there any spasmodic or convulsive movement of the body through the whole progress of the case, as has been observed in cases of poison by the volatile oil of the drug. Its physiological action was first expressed upon that portion of the nervous system which presides over the intellectual faculties. Secondly, upon the posterior division of the spinal neurotic mass. Thirdly, upon the centres of voluntary motion, terminating its narcotic invasion in the medulla. I do not remember to have observed recorded any case of fatal poisoning by this agent taken in this form. The volatile oil has been known in several instances to produce a fatal result, when criminally swallowed to destroy the fetus in utero, preceded by violent convulsions, chronic spasms, with much disturbance of respiration. In this instance, there was some rigidity of the muscles before coma, but never any sudden involuntary movement of them.

Reports of Hospitals.

NEW YORK HOSPITAL.

TWO CASES OF COMPOUND FRACTURE OF THE CLAVICLE.

[Reported by J. L. LITTLE, M.D., Senior Assistant.]

It is well known that compound fracture of the clavicle is of very rare occurrence, and it may be interesting to state that out of 191 cases of fracture of this bone, reported in the register as occurring within the last ten years, only the two following were compound:

CASE I.—Michael H—n, æt. 45, Irish laborer, admitted May 24, 1858, in the service of Dr. Buck. About two hours before admission, he was injured by the fall of a pile of lumber (estimated to weigh more than a ton) which

crushed him against another pile. In addition to a fracture at the base of the skull, fracture of sternum, ribs, and arm, the patient sustained a *compound fracture of the outer third of left clavicle*. The wound was large enough to admit the tip of the little finger, and bubbles of blood escaped on inspiration. Patient survived only three hours after admission.

CASE II.—William T—n, æt. 30, American seaman, was admitted Nov. 9, 1860, in the service of Dr. Parker. Patient fell down the hatchway into the hold of a vessel, a distance of about ten feet, and sustained a *compound oblique fracture of the outer third of the right clavicle*. The outer end of the inner fragment protruded through the wound. Hemorrhage was slight.

The fracture reduced by house surgeon, and a compress of lint applied over wound; a pad placed in the axilla, and arm bandaged to the side. Five days after admission supuration commenced; patient was kept in a recumbent position to prevent the burrowing of pus; the wound kept clean, and cold water dressings applied.

The case progressed favorably up to January 7, 1861, when patient, at his own request, was discharged. At this time the wound was filled with healthy granulations, supuration diminishing, and union of fragments was commencing.

UNIVERSITY MEDICAL COLLEGE.

PROF. W. H. VAN BUREN'S CLINIC.

CONCEALED TESTIS REMOVED FROM THE INGUINAL CANAL;
LITHOTOMY; INJECTION OF BLADDER FOR CHRONIC CYSTITIS.

CASE VIII.—PROF. V. B. exhibited the right testis of a patient presented at the last Clinique, which he had removed the following day at St. Vincent's Hospital. The patient was a young man of twenty, from the country, with a tumor in the right groin, which was the seat of violent neuralgic pain, making its appearance in paroxysms as often as twice a week. The tumor, on examination, was found to occupy the inguinal canal, and could be extruded by manipulation through the external abdominal ring, but could not be pushed lower than the crest of the pubes. It was smooth, as well as movable, and when it was compressed pain was experienced similar to that caused by squeezing of the testicle. On examination of the scrotum, it was found to contain but one testis, which was unusually large, and perfectly healthy. The patient stated that he had been able to diminish the frequency of his attacks of pain by extruding the tumor from the inguinal canal and wearing a truss over the canal so as to keep it outside. There was no hernial protrusion. Patient insisted that up to the age of ten years he had two testicles in his scrotum, and about this time one of them had disappeared—being, as he said, "drawn up," and from this date his attacks of pain had commenced.

Remarks.—This is evidently a case of *monorchidism*, the right testicle never having descended entirely into the scrotum, for I do not place entire confidence in the patient's opinion that he had two testes in his scrotum when a boy. Moreover, it is the seat of neuralgic pain which is making the patient's life miserable, and besides it is atrophied—being not more than one-third the size of the gland of the left side, which occupies its normal position—the habitual pressure of the truss upon the spermatic cord having probably aided in producing this result. As there are no medical means by which his pain can be relieved with certainty and permanently, I shall advise the patient to submit to the operation of castration.

The patient willingly submitted to the operation; and the testis, though small and wasted, is apparently otherwise normal in structure. The tunica vaginalis lined the interior of the inguinal canal, but there was entire closure at the internal ring, allowing no communication with the peritoneum; it did not extend into the scrotum.

CASE IX.—A boy, three and a half years of age, brought to the Clinic by Dr. Larkin, of Williamsburgh, had been

suffering severely for eighteen months from symptoms of urinary calculus. His calls to pass water were very frequent, and excruciatingly painful. He was pulling constantly upon the prepuce. Last week he was examined before the class, and on the introduction of a steel sound the contact of a calculus was distinctly felt and heard by those in his vicinity. The operation of lithotomy was advised, and to-day performed by Prof. Van Buren, the lateral operation being selected. The neck of the bladder was divided by a probe-pointed knife, and a calculus of a spherical shape withdrawn by the forceps, about seven-eighths of an inch in diameter, studded with sharp projections, and presenting the external appearance of a mulberry calculus.

Remarks.—In patients of this age the operation of lithotomy is preferable to lithotripsy, and in its result is usually very satisfactory. In about twenty-five cases in which I have performed the lateral operation upon children, I have not lost a case. The wound closes in about a fortnight, by granulation, and there is very little after-treatment required beyond attention to cleanliness. Many of those present may remember a boy of five years of age, who was brought to the Clinic last spring by his father, and whom we examined and performed this operation upon on the spot. He recovered promptly. An otherwise healthy child rarely requires any preparation for the operation, provided the rectum be empty, and in such cases I recognise no necessity for delay.

CASE III.—Remarks.—This patient is a man of forty, who has been under treatment for a very tight stricture of long standing, complicated with cystitis, and also with a large hemorrhoidal protrusion which, coming down at each effort to pass water, occasioned constant loss of blood, by which he has been excessively reduced. His stricture has been dilated by the usual mode of treatment, and by the use of a suppository of watery extract of opium at bedtime, and the administration of tincture of the sesqui-chloride of iron internally, his condition has been, as you see, very much improved. The main cause of his cystitis having been removed, I shall now proceed to inject his bladder with tepid water as the best means of restoring it to a healthy condition. This operation should be conducted with extreme care and gentleness, and repeated at short intervals—the interval depending upon the degree of tolerance of the patient. If the patient's improvement by these means is not entirely satisfactory, I should employ a very weak solution of nitrate of silver—say gr. j. to $\frac{3}{4}$ i.—gradually increasing its strength.

The injection of the bladder was then made by means of a flexible catheter, a connecting tube of India rubber, and a large syringe of hard India rubber, and continued until the tepid water was returned perfectly clear and pellucid.

POISONING BY EATING LEMONS.—Dr. Farre reports in No. XXI. of the *Lancet* two cases of poisoning occurring in young children, aged respectively three and five years, caused by eating lemons. The symptoms were those of great prostration and collapse with insensibility, lividity of the face, and absence of its pulse at the wrist. The breathing was in the form of gasping, and the general surface of the body was cold. The treatment consisted in the administration of carbonate of soda, wine and water, and beef-tea. Both cases recovered. The whole of the interior of two lemons was taken by one of the children, and possibly one half by the other; in both the stomach was empty at the time.

ALLEGED CONSUMPTION OF MEAT.—According to Mr. Block, the yearly consumption of meat by each individual in the various European countries, is as follows: France, 44 lbs.; Great Britain, 59 lbs.; Bavaria, 45 lbs.; Spain, 28 lbs.; Holland, 40 lbs.; Sweden, 44 lbs.; Denmark, 49 lbs.; Saxony, 41 lbs.; Wurtemberg, 49 lbs.; Austria, 44 lbs.; Naples and Sicily, 23 lbs.; Hanover, 41 lbs.

American Medical Times.

SATURDAY, MARCH 16, 1861.

WHAT SHALL WE READ?

A FACETIOUS professor in one of our medical schools is accustomed to give the following as his parting counsel to the graduating class:—"If you find leisure to read during your first years of practice, select novels in preference to medical journals." This admonition is generally received by the students as one of those broad jokes for which its author is so greatly distinguished, and is no further heeded. But that the advice is seriously given, is proved by the fact that the professor himself strictly adheres to it. His library is entirely free from this dangerous class of publications, but abounds in yellow-covered literature of every description. During the past year the professor's theory was put to a practical test, and the sequel furnishes a lesson which we wish to impress upon the recent graduates, upon the general practitioner, and finally, upon the teachers in our medical schools. A question arose in the profession, as to the propriety and possibility of a given operation in the department of practice which this professor has taught in a manner peculiarly his own for a score of years. Now, as often happens, this operation had been discussed almost entirely in the medical journals, and many of the well recognised authorities had therein declared the operation practicable and proper. The inquiry was made of this devotee of novels, whether the operation was approved by any responsible author, to which he returned an emphatic, No! The correspondence was subsequently published, and the profound ignorance exhibited of the well known improvements in the branch which he was teaching, has rendered the position of the professor truly unenviable.

It will doubtless seem quite superfluous to those who habitually read our best medical periodicals, to urge the importance of this class of publications, and their claim upon the profession. But whoever will institute a careful inquiry as to the number of medical men who, even if they subscribe to, and pay for a medical periodical, read it with care and attention, will be astonished at the result. He will find that few, comparatively, really profit by the journals which they may happen to take, and the proof of the fact will be seen in the practice of the individual. For those who read with interest our best medical journals are invariably found to be the most successful practitioners, and *vice versa*.

But this indifference to medical journals is not confined to the general practitioners; the person alluded to in the opening paragraph of this article, is the type of a class of public teachers, who move in an atmosphere never tainted by such publications. They discard all new-fangled notions, as they style the improvements and discoveries first laid before the profession through this medium, and annually repeat to their classes, the old and often obsolete theories which they themselves learned when students. These teachers are by no means exceptional, even in our most flourishing schools. We have listened to lectures on surgery, medicine, and obstetrics, within a few years, not a whit in advance of the age of Hunter,

Cullen, and Denman. Is it not time that this class of professors were supplanted by men who are capable of teaching these branches in the light of modern science? The question has been asked in our columns: At what age does a medical man become unable to keep pace with scientific discoveries, and at what age are Professors in our medical colleges no longer competent to instruct classes in the latest improvements in the medical sciences? We shall give to both queries one answer: when a medical man reaches an age where his self-conceit leads him to believe that he can learn nothing from medical journals, he is no longer able to keep pace with the progress of the medical science, or to instruct classes in its latest improvements.

In view of these facts, therefore, and of the deliberate advice given from professional chairs, we deem it our duty at this time to enter a plea in behalf of medical journals, as the proper reading of recent graduates, of established practitioners, and even of the professors in our medical colleges.

What is the proper office of a medical journal? Undoubtedly it is to be the medium of communication between the members of the profession. Such a medium is now recognised as essential to the progress of every science and every art. It stimulates to active effort, not only in research, by the constant attrition of minds engaged in a common pursuit, but to the practical application of principles and newly discovered facts. It performs in this respect, to the profession at large, the same office that a local organization does to the few, being the medium of mutual improvement and encouragement. The advantages of a medical journal to the general practitioner, who has to grapple with the stubborn facts of every-day practice, are incalculable. They have not unfrequently contributed to his immediate success, by giving him timely information of new and important discoveries. Many of the most valuable methods of practice introduced to the knowledge of the profession within the last five, and in some cases even ten years, have not found a place, as yet, in practical treatises, but must be studied in the original journal where the paper first appeared. It is, indeed, a common remark that the physician who keeps pace with the improvements in his art, must be a careful student of medical periodicals.

Again, the medical journals fulfil another, and not less important mission. They elevate the tone of professional morality; they cultivate a just and liberal criticism; and finally, they establish a higher standard of attainments. In this view, we welcome the appearance of new and well conducted periodicals in distant localities, and regard them not only as evidences of the progress of legitimate medicine, but as safeguards against the bickerings of individuals and the encroachments of quackery. And we take this occasion to urge upon physicians living in localities where such publications exist, the duty of sustaining them liberally, both by literary and pecuniary contributions.

Finally, they tend powerfully to unite the profession in a common brotherhood for the attainment of those rights and privileges, whether social or political, which are due to legitimate medicine. The triumph of the British medical profession in obtaining the enactment of laws designed to establish it upon a firm legal basis, is a striking proof of the power of medical periodicals to concentrate its sympathies and influences. No country has greater need of such

publications than ours, and in no country may they exert a more salutary influence. With free institutions susceptible of infinite modification, the medical profession forming a most respectable element in every community, however remote, may wield a power of unlimited extent. This power it is the province of the Medical journals of this country to organize and concentrate for the accomplishment of such such objects as tend to elevate and ennoble the profession, and advance the best interests of society.

COMPARATIVE PREVALENCE OF PHTHISIS PULMONALIS IN DIFFERENT PORTIONS OF THE UNITED STATES.

THE most complete sketch of the medical topography of the United States yet published has been already reviewed in this journal. We allude to the Report on the Medical Statistics of the United States Army, prepared by Surgeon Richard H. Coolidge, under the direction of Brigadier General Lawson. The great excellence of this work consists in the elucidation of certain fixed laws and principles from a vast array of crude facts and data, which had been accumulated in the archives of the War Department for many years.

The statistical table herein copied we extract from Dr. Coolidge's work, as being the only complete *exposé* of the comparative prevalence and gravity of Pulmonary Consumption in the different regions of the United States, which exist.

*Consolidated table exhibiting the amount and annual ratio of sickness and mortality in each region from Phthisis Pulmonalis.**

No.	Regions.	Mean strength.	Number treated.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1000 of mean strength.
1	Coast of New England.....	4,529	21	6	1 in 3.5	4.6
2	Harbor of New York.....	12,556	73	40	1 in 1.8	5.6
3	West Point.....	9,400	14	14	1 in 1	1.5
4	North Interior, East.....	3,553	17	10	1 in 1.7	4.7
5	The Great Lakes.....	10,770	49	34	1 in 1.4	4.5
6	North Interior, West.....	13,492	44	27	1 in 1.6	3.1
7	Middle Atlantic.....	8,407	23	19	2 in 3	3.3
8	Middle Interior, East.....	3,804	11	6	1 in 1.8	2.8
9	Newport Barracks, Kentucky.....	2,475	9	6	1 in 1.5	3.6
10	Jefferson Barracks and St. Louis Arsenal.....	6,956	26	24	1 in 1.1	3.7
11	Middle Interior, West.....	9,681	36	21	1 in 1.7	3.7
12	South Atlantic.....	3,401	27	6	1 in 4.5	7.9
13	South Interior, East.....	6,419	44	29	1 in 1.5	6.9
14	South Interior, West.....	12,312	41	28	1 in 1.5	3.3
15	Atlantic Coast of Florida.....	1,835	5	2	1 in 2.5	2.7
16	Interior and Gulf Coast of Florida.....	3,939	31	6	1 in 5	7.8
17	Texas, Southern Frontier.....	7,310	24	16	1 in 1.5	3.3
18	Texas, Western Frontier.....	13,183	45	22	1 in 2.2	3.6
19	New Mexico.....	13,445	25	4	1 in 6.2	1.8
20	California, Southern.....	3,865	19	9	1 in 2.1	4.9
21	California, Northern.....	3,853	21	9	1 in 2.3	5.4
22	Oregon and Washington.....	8,974	45	10	1 in 4.5	5
23	Utah.....	5,842	8	1	1 in 8	1.3

From the foregoing figures we find that the regions containing the greatest percentage of cases as compared to the mean strength of the troops, were the South Atlantic; north of Florida; interior and gulf coast of Florida; South Interior East; harbor of New York. The greatest proportion of cases occurred at the posts along the South Atlantic coast: these being 7.9 cases per 1000.

The least ratio of cases per 1000 men (mean strength) appears to have been at West Point, New Mexico, Utah,

and the Atlantic coast of Florida. The ratio at West Point should be much reduced by the fact that the cadets having comfortable homes to go to, would naturally be discharged from the academy at their own request, while merely suffering from incipient symptoms, such as bronchitis, debility, &c.; and these cases would in the majority of instances be entered under the headings, bronchitis, debility, &c., by the surgeons in attendance. For this reason we can account for the great apparent mortality at the latter place as corresponds to the number of cases reported. In the following localities and regions, in the order named, the ratio of mortality to the number of cases was the greatest: West Point, Jefferson Barracks and St. Louis Arsenal, the Great Lakes.

At West Point, of 14 cases reported, all died!

The least proportion of deaths to cases occurred in Utah; New Mexico; Interior and Gulf coast of Florida; South Atlantic States; and Washington and Oregon. Excluding the report from West Point, which is unreliable for the reason mentioned, we find that Utah and New Mexico present decidedly the most favorable report, and that the states on the Pacific coast follow very closely. Utah stands out prominently as the place, *par excellence*, for freedom from consumption, or, if it occur, from death! Let us again look at the Sanitary Report: out of a mean strength of 5,842 regular troops in Utah, during the three years 1857, 1858, 1859, there were but eight cases of Phthisis Pulmonalis, of which but *one died!* Opposed to this we have out of a mean strength of 12,856 men stationed in the harbor of New York, 73 cases, of which 40 died.

THE WEEK.

THE official notice of the next meeting of the American Medical Association has been issued. It will be held at Chicago on the first Tuesday in June next. We anticipate the largest and most influential gathering of medical men on that occasion known in the history of that society. We may notice here a misunderstanding in regard to the Chairman of the Committee on Prize Essays. PROF. BRAINARD received the appointment, and his name appeared in that connexion, but it now appears that he early declined to serve. No notice, however, was taken of his resignation, but from a card in the *Chicago Journal* we learn that he persists in his declension. This error has already created trouble, and should be remedied.

WE regret to notice in the *Boston Medical and Surgical Journal* the death of another physician, from disease of the throat, communicated by a patient. DR. HORACE W. ADAMS, of that city, attempted to resuscitate a patient, suddenly dying of disease of the throat, by endeavoring to inflate the lungs, by blowing into his mouth. On the second day Dr. A. began to complain of soreness of his throat; the symptoms rapidly grew worse; false membrane formed in abundance, and was occasionally expectorated with great difficulty. Death took place on the sixth day, in the following manner, soon after his medical attendant left him:—"About twenty minutes afterwards he suddenly had an attack of strangling, got out of bed, put his hands to his mouth, as if to remove some obstruction, and started for the door of an adjoining room. The nurse who was with him lifted him on the bed, and he immediately expired." On post-mortem examination the false membrane was found covering the tonsils, fauces, extend-

* These statistics embrace a period of 20 years to July 1st, 1860.

ing through the glottis and trachea, to the secondary bronchi. "Near the rima glottidis was a small shred, loose at one extremity, which might have caused obstruction, and suddenly terminated the life of the patient." Was not tracheotomy advisable in this case, when the evidences of the formation of membrane in the larynx were established?

THE *Providence Journal* (R. I.) of March 9, has a caustic review of the New York City Inspector's late Report. We have already noticed some of the absurdities of that document, but this article exposes others relating to the large New England village where this paper is published. The absurd statement of the City Inspector that small-pox is at present raging in two or more cities, and may soon be announced in New York (from which city it has not been absent for the space of forty years), has not escaped comment.

The following statement proves the groundlessness of the imputation of the City Inspector, that there is little attention given to vaccination by the authorities of Providence, because the cases of small-pox imported from New York introduced the disease among the inhabitants of that city:—

"During the last five years, since the Health Department was organized in Providence, thirteen cases of small-pox and varioloid have appeared here which were known to be brought directly from New York City. In nine of the thirteen cases the disease was prevented from spreading at all, and was not communicated to a single individual. In the remaining cases, owing to the fact that the disease was not recognised by the physician and was not reported to the Health Officer, it was communicated to others, but in all cases it was arrested and brought to an end within a short time. During the same five years, nine cases of the disease have been brought to the city from Boston, three cases from other places, and four cases have appeared in which the origin could not be ascertained. Now what has been the result of this large number of cases of small-pox imported into Providence? During the whole five years, 1856 to 1860 inclusive, there have been only eighteen deaths from small-pox and varioloid in Providence with a population of 50,000. This is an average of three and six-tenths (3.6) deaths each year. During more than two years and a half of this time, from May 1856 to January 1859, there was not a single death from small-pox or varioloid in Providence."

The proportion of deaths from small-pox to the population was for five years, in Providence, 1 in 2,815, and in New York, 1 in 480!

We trust this article will be carefully pondered by the City Inspector.

THE New York Medical College held its Annual Commencement on the 13th inst. The degree of M.D. was conferred on seventeen young gentlemen. The Honorary Degree of Doctor in Medicine was conferred upon MANUEL DE AQUAR and D. PEDRO GIRALT. The Van Arsdale prizes for the best theses were awarded to ELNATHAN STEELE and J. HENRY GUILD. The address to the graduating class was delivered by Prof. B. J. RAPHAEL.

THE first lecture of Prof. CLARK, on Diphtheria, will appear next week.

Reviews.

A CATALOGUE OF THE PATHOLOGICAL CABINET OF THE NEW YORK HOSPITAL, CLASSIFIED AND ARRANGED. By ROBERT RAY, JR., M.D., Curator. With a Memoir of the Author. New York: S. S. & W. Wood. 1860. pp. 364.

The author of this volume, whose untimely death we noticed some time since, has rendered an important service both to the New York Hospital and to the students of pathological anatomy, in the preparation of this admirably classified catalogue. Though somewhat familiar with his labors, we were quite unprepared for a work of these dimensions, and of such completeness of detail. It is divided into the following sections: 1. Bones; 2. Joints and Tendons; 3. Digestive System; 4. Respiratory System; 5. Circulatory System; 6. Nervous System and Organs of Senses; 7. Genital and Urinary System; 8. Parasites. The description of each specimen is very full, and appended is the name of the donor. The work will be a lasting monument to the industry, zeal, and learning of its lamented author.

SKIN DISEASES AND THEIR REMEDIES. By ROBERT J. JORDAN, M.D. London: John Churchill. 1860. Pp. 283.

Dr. Jordan has endeavored to prepare a brief yet exact work on Skin Diseases, which should "serve as a handy book for reference," and to this has prefixed the early history of these affections in Europe. We are not favorably impressed with the result of the author's labors. This treatise is not in any respect more easy of reference than the works of Wilson & Neligan, now in general use, while it is destitute of those explanations and discussions essential to a right understanding of the nature and treatment of these diseases.

TRANSACTIONS OF THE FIFTEENTH ANNUAL MEETING OF THE OHIO STATE MEDICAL SOCIETY, held at Ohio White Sulphur Springs, June 12, 13, and 14, 1860. Columbus: 1860, pp. 267.

THE published transactions of our state medical societies are rapidly increasing in interest, and several are annual volumes of great value. This volume may be ranked as one of the best of this class that has appeared during the past year. The special reports are well written, and deserve more than a passing notice. The Report on Cannabis Indica, by R. B. McMEENS, M.D., of Sandusky, is replete with practical facts. The Report on the Effects of Chloroform upon the Intellectual Processes, by T. L. WRIGHT, M.D., of Bellefontaine, discusses at length the medico-legal questions which it involves. It is a very valuable paper. The Report on Insanity, by RICHARD GRUNDY, M.D., is elaborately written, and adds much to the value of the Transactions.

A GUIDE TO THE PRACTICAL STUDY OF DISEASES OF THE EYE. with an outline of their medical and operative treatment: By JAMES DIXON, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, &c. From the Second London Edition. Philadelphia: Lindsay and Blakiston, 1860, pp. 425.

IN the preface to the first edition the author states that his design was to prepare a work in which the diseases of the eye were chiefly studied from objective phenomena, in order not to extend his treatise by elaborate discussions. It embraces a careful review of the diseases of all the different tissues of the eye, their symptoms, diagnosis, and treatment. The ophthalmoscope is briefly explained, and its uses mentioned. From the brief examination which we have been able to give Mr. Dixon's work we regard it as a fair exponent of the present state of ophthalmic medicine.

Progress of Medical Science.

TOXICOLOGY.

By SAMUEL R. PERCY, M.D.

THERE are numerous agents of the *Materia Medica*, which produce deleterious effects even when exhibited in small doses, but when given in inordinate doses or quantities, produce death by poisoning. The word toxicology is derived from the Greek, and means a treatise or discourse upon arrows; and as arrows were in those days frequently poisoned, thence a discourse on poisoning. The word now has a wider meaning, signifying a treatise on poisoning and poisonous agents in general. There is probably no branch of the science of medicine that has made such rapid advances within a few years as this of which we are treating; and many of the most accurate and investigating minds both of this continent and of Europe are daily adding fresh facts to the science. One reason for its rapid advance is that it is an exact science, that it treats of facts that are demonstrable; and no matter how often they are repeated, it is with the same results. As chemistry has improved, and is daily presenting us with fresh agents in a positive and highly concentrated form, either from the animal, vegetable, or mineral kingdom, toxicology has kept pace, and has presented means for the detection of those agents in quantities so minute as almost to seem incredible; and not only can these agents be detected in their pure or unaltered state, but they can be recognised when they have been changed by passing through the living organism of man or animals, and detected in the various secretions, as the urine, the saliva, &c. So truly important and reliable has the subject become, that if a death now happens under suspicious circumstances, the law calls in to its assistance the skill and learning of some expert, and upon his demonstrations finds the prisoner guilty of murder. The alkaloids, and some of the animal poisons, when given in doses sufficient to cause death, but yet in moderate amount so far as quantity is concerned, leave behind them a visible trace by which their action on the system can be detected; they are looked for therefore in the contents of the stomach, and in the various secretions formed from the blood. To many of them are applied tests or reagents, which will detect their presence in quantities so small as $\frac{1}{100,000}$ th part of a grain, and there are none that cannot be readily detected in quantities of $\frac{1}{100}$ th part of a grain. There are also other means of detection, one recommended by the late Marshall Hall, called "The Physiological Test," which consists in this instance of administering liquids supposed to contain strychnia to frogs, or in injecting it either into the serous cavities, or underneath the skin of the animals, and if present it produces in them violent tetanic spasms. Bernard has, during the last winter, delivered a series of lectures on various toxic agents, and has added some new facts. Dr. Mitchell of Philadelphia, Dr. Dalton of New York, and others, have also added their quota.

Bernard demonstrated to his class that certain agents which destroy life with great rapidity, leave behind them no appreciable alteration of the tissues, on which their deadly action has been exerted. Thus in the action of woorara he demonstrated that the motor nerves were entirely paralysed, without exhibiting the slightest modification in their anatomical structure or physiological properties, but that the electro-tonic power still exists in its usual degree of intensity; the galvanic stimulus, however, and the impulse of the will, no longer exert their wonted influence on the locomotive apparatus. Strychnia, he demonstrates, confines its action to the sensitive portion of the nervous system, the convulsions which arise from its introduction into the economy, being merely the result of reflex action. The demonstration he proves by experiments upon two frogs. This consists in tying the vessels of the posterior limbs in

two frogs, without injuring the nerves. The animals are then simultaneously poisoned by injecting under the skin of the back a solution of woorara in the first case, and of strychnia in the second. The operative proceeding is as follows:—A thread being passed under the sacrum immediately in front of the origin of the lumbar plexus, the whole remaining part of the animal body is included in a single ligature. All vascular communication being thus intercepted between the hind legs and the anterior portion of the body, the poison exclusively circulates in the trunk and upper limbs, without passing beyond them. In spite of this obstacle the posterior limbs of the frog poisoned with strychnia enter into convulsion, while in the animal submitted to the action of woorara voluntary motion exists below the ligature, while absolute paralysis prevails above it. The result in the first case was from the general influence upon the entire economy, by all actions brought to bear upon the sensitive nerves, which, acting upon the spinal cord, produce the universal disturbance of the normal functions. But the effects of woorara in the second case, are only felt in those to which the circulation has conveyed it, and are confined to the upper half of the body. The subject poisoned with strychnia does not, after a few minutes, exhibit the slightest vestige of reflex action in any part of the body; and the motor nerves, when galvanized, are found to have lost the power of acting upon the muscles, and this loss of power extends to all regions of the body. In the subjects poisoned with woorara there is a different state of things. The sensitive nerves have everywhere retained their usual properties, while the motor branches are paralysed above the ligature; but below this point voluntary motion lasts as long as life remains.

This loss of power of the muscular system, and its subsequent results upon animals poisoned with Veratria, I noticed more than two years ago. During a series of investigations upon Veratria obtained from *Veratrum album*, and the Veratria obtained from *Veratrum viride*, I noticed that animals poisoned with either alkaloid lost the power over the locomotive muscles, and after death that the galvanic current did not exercise the same convulsive movements as in cases of death from other causes. When these alkaloids were administered to dogs, either by hypodermic injection or by the stomach, the alkaloid was several times detected in urine, and the urine produced also the physiological results, when administered to other animals. In other articles we will review M. Bernard's experiments, and those of other physiologists, and if acceptable from time to time give the various reagents and tests for the alkaloids, &c., together with such interesting cases of poisoning, and their detection, as may come under our notice.

Reports of Societies.

ACADEMY OF MEDICINE.

SECTION ON SURGERY.

February 15th, 1861.

SURGICAL SECTION.—DR. JAMES R. WOOD, CHAIRMAN.

PUNCTURE OF THE CAPSULE OF THE HIP-JOINT.

DR. LEWIS A. SAYRE presented a man who, on the 1st of November, 1855, had received a heavy blow over the region of the hip from a large beam of timber; great pain and distress were occasioned, which lasted for several days, when there was a slight remission. He was not at any time, however, free from suffering, and at first complained of his knee, but about the 20th of December he began to feel pain in the hip-joint on the affected side, to suffer from loss of appetite and emaciation. This continued with but little abatement until the 4th of January, 1856, when, after

exercising the limb for two days, his sufferings were greatly aggravated; the limb now began to elongate and turn outwards, and to stiffen in the joint. At this juncture he, for the first time, sought medical aid; Dr. Riggs was called in, who, looking upon it as a case of rheumatism, treated him accordingly for about six weeks. The disease, however, gradually advanced, producing all the symptoms of irritative fever. Dr. Sayre was called in consultation on the 18th of February, 1856. The patient was then found semi-recumbent, with his right leg bent at the knee over a pillow, everted, and abducted; adduction or rotation was impossible, and the attempt produced the most intense agony. Indistinct fluctuation was discoverable over the hip-joint. Looking upon the case as one of synovitis with effusion, iodine was applied, and compression made by long adhesive straps firmly applied, and a tight roller from the toes up over the hip in order to promote absorption. Iodide of potassium was given internally. Under this treatment, at the end of six days, the symptoms were found much aggravated; and as the fluid in the joint seemed much greater, puncture of the capsule was resolved on, in order to prevent still more serious mischief. This was effected by the introduction of a small tenotomy knife behind the trochanter major, and *pus* escaping, the external wound was extended five inches, and the capsule opened freely. Nearly a teacupful of pus escaped, the limb immediately resuming its natural position; there was no crepitus, and with the finger in the capsule no roughness could be detected about the head of the bone. The joint was thoroughly syringed with warm water, the wound filled with lint, and covered with oil silk. From this time forth the case did well, no bad symptoms followed the operation, the wound suppurated freely, and the prognosis was, that recovery would follow with ankylosis. It is now four years since the operation, and the patient presents himself in perfect health, and capable of *complete motion of the joint*, in which condition he has been for three years past. Dr. S. said, that in this case there was no dislocation of the head of the bone, nor were the osseous tissues of the joint in any way diseased—there was nothing like exfoliation after the operation. He looked upon it as a simple case of synovitis going on to suppuration. In this case his first puncture had been unsuccessful, inasmuch as it was too far behind, thus going down by the side of, and external to, the capsule.

RESECTION OF THE ELBOW-JOINT.

DR. JAMES R. WOOD presented a boy aged seventeen years, whose elbow-joint he had resected five weeks previously. He stated, that four years ago, while the patient was on a farm, he experienced severe pains in his legs and arms, exacerbating in the evening; soon the right leg became swollen and discharged considerable matter. In the course of one year, three or four small pieces of bone were discharged through a small opening about three inches above the external malleolus; it then healed and the right arm began to swell; a sinus was formed on the under side, through which a small fragment of bone was extended. About four or five months since, he was attacked with inflammation and swelling of the elbow-joint, which was relieved in a few days. In the course of the two subsequent months, however, he had two re-accessions of the trouble about the joint, the last of which left the arm in a semi-flexed position and incapable of motion. On the 5th of January last, Dr. Wood resected the joint. The ulnar and internal condyle were found most diseased, the synovial membrane, cartilage, and the bone itself were much ulcerated and eroded. He made the letter **H** incision, removed the diseased portions, and, with the exception of the most depending part, closed the wound with silver sutures. The arm was placed in a semi-flexed position on a pillow in bed, the cold water dressing applied, and the patient ordered half a grain of morphia. The wound did well, and on the first of February, having healed, passive motion was commenced. At present he has considerable

motion in the joint, and carries a pail several times each day by way of exercising it and preventing ankylosis.

Dr. W. remarked that he always preferred the "**H**" incision, though there were good surgeons who employed the straight incision. He conceived the chief secret of success in the operation to be, free exit of matter, and hence always encouraged a free discharge. With this view, he sometimes resorted to the introduction of tents. In this case, though there was considerable diseased structure, he took care to preserve the periosteum, particularly at the insertion of the triceps muscle, so as to secure some osseous structure for the muscle to cling to. In this case, the end of the radius, though not diseased, was removed, in accordance with his custom, so as to leave no cartilage of incrustation to become ulcerated, and thus destroy the joint.

Dr. FINNELL related a case of spontaneous cure, where the elbow-joint had been apparently destroyed by disease. The patient refused to have it resected; consequently, a free incision was made posteriorly, for the discharge of matter. The case is convalescing.

A FRACTURE DISUNITED BY GOUT.

Dr. O'RIELLY related an interesting case, wherein a fracture of the internal malleolus had been *disunited* by the supervention of an attack of gout in the ankle-joint. Considerable inflammation and ulceration followed on the inner aspect of the joint, producing the condition of *compound* fracture; the fragments of bone could be felt, mobile and loose, through the opening. On relief of the gout, the wound gradually healed, followed by reunion of the bones.

A NEW INSTRUMENT FOR MEASUREMENT OF THE LOWER LIMBS.

Dr. MINOR, of Brooklyn, presented an instrument for the more accurate measurement of the lower limbs. To avoid the many fallacies incident to the usual modes of measurement, he employs a "beam compass" with a stationary metallic point, about three inches long, inserted at right angles into one end of the beam, which is graduated to one-sixteenth of an inch; there is another similar point attached to a slide, which can be moved up and down the beam at pleasure. By sticking a piece of adhesive plaster over the spinous process of the ileum, and by marking upon it the precise point of the spine, or by simply indicating this upon the integument with a soft crayon; one finger of the compass is placed upon this point, while the other is similarly placed upon the malleolus; the precise length can then be read off upon the beam. Dr. M. had found this a most accurate instrument.

Dr. BATCHELDER effected these measurements by drawing a straight line from the middle of the superior extremity of the sternum over the symphysis pubis to the feet—both of which should be kept fully up against the line. This brings the pelvis at right angles to the body, and enables him to measure either limb from three different points—the top of the sternum, the symphysis pubis, and the spine of the ilium. On combining these different measurements a very accurate result may be obtained.

Dr. MINOR said, that at some future time he would present to the Society the results of his researches in reference to the fallacies in the measurement of the lower limbs. He had found them much more numerous than was usually supposed.

SEPARATION OF THE CALVARIUM, THE RESULT OF A BURN.

Dr. PEASLEE read the history of a case, from a British American journal, reported by Dr. Philpot, of Simcoe, C. W. The subject was a woman who had fallen into the fire during a fit, and had portions of her parietal and frontal bones charred and denuded. The burn was treated with Canon oil. A slough having separated, the bones were left exposed, and the surrounding integumental margins in a granulating condition. The patient was not seen again for ten months, when, on passing one day, she was seen with her head tied up and with her entire "skull cap" in her hand. She stated that feeling the cranial bones loose, she

lifted the top of the skull from off its cerebral contents, leaving them naked and pulsating. This detached portion of cranium measured longitudinally from edge to edge, on its concave aspect, five and three-quarter inches—transversely, four and a half inches. Her physiognomy is much disfigured in consequence of the accident; her health, however, is good, she being able to attend to her domestic duties with little or no inconvenience, except an occasional pain in the head.

Dr. Post had not supposed it possible for the whole summit of the brain to be denuded with impunity, and hence, having no acquaintance with the reporter, he was inclined to be a little sceptical.

Correspondence.

EXTENSION IN FRACTURES.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I have read the paper on "Simple Extension in Fractures of the Long Bones" by Dr. Swinburne, in your issue for March 2, also the discussion upon it before the State Medical Society, and I take this opportunity of referring to the principles therein advocated, because I firmly believe them to be entirely erroneous. I am satisfied in my own mind that he gives no reason why splints should be abandoned; on the contrary, I think that the very apparent incoherences in the paper, tend strongly to show their efficacy. He pretends to ignore splints altogether for purposes of coaptation, and yet we find him advising support of the bone against a strip of board by means of circular strips of adhesive plaster placed at short intervals. Permit me to give you an example of this in his own words. In speaking of the treatment of fracture of the thigh, he says:—"If, after full extension is effected, it should appear that the limb is not sufficiently steady at the seat of the fracture, the application of strips of adhesive plaster around the limb and splint at intervals of three or four inches, will accomplish all the indications." He says substantially the same thing in relation to the tibia. Now, sir, what does this prove? What character of coacting splint could do more than this? In fractures of the radius and ulna he certainly cannot deny that a *bonâ fide* splint is used; and in "silver fork" fractures the only reason he gives for preferring his own to Dr. Shady's splint is, that the latter is not always at hand. He maintains that the fractured limb, when fully extended, brings the fractured ends of the bone exactly in apposition, the muscles acting as splints. If this be so, why is there occasion for "uncasiness as to the disposition of the bone?" He seeks also to establish the absurd principle that muscles cannot be extended beyond their natural length. If this be true, how can he explain the result of the case of fracture of the thigh related by Dr. Batchelder, where the fractured limb was at least three quarters of an inch longer than the sound limb? How can he refute the experiments of Dr. Bly? Again, I cannot understand the force of reasoning adopted by Dr. Swinburne to prove that the muscles act in a straight line. Dr. Wood takes the proper ground in relation to that point, and proves pretty conclusively I think, to every one's mind, that such is not the fact. The muscles must contract by shortening their longitudinal axes, and the adductors must tend to lateral displacement. Dr. Swinburne's explanation of the manner by which the action of these muscles is modified by the position of the perineal pad is, to say the least, ingenious. Dr. S.'s object in thus bringing up the subject of extension in a new form before the profession (for I am not aware that he claims any originality in the matter), is a laudable one; he is desirous of simplifying the treatment of fractures, and for the attempt which he has made to bring about that end, he certainly deserves a great amount of credit. He however

has, I think, allowed his enthusiasm to lead him into error in regard to the adaptation of his principle to practice, which fact being assumed, proves to my mind that the principle is erroneous. His honest efforts to prove the opposite state of things only show how skilfully he can ride his "hobby." Every good surgeon uses a splint for coaptation of a fractured bone; and so does he, though he thinks he does not. In relation to the subject of exclusive extension, I must be permitted to make one remark, and that has relation to its use in fractures of the os brachii. Dr. Swinburne must pardon me when I give it as my conviction that he is indeed a bold surgeon to advocate a plan of treatment which is so universally acknowledged to result in non-union, viz. keeping the ends of the bones apart from each other. The principle is certainly the exact opposite of that practised by our most eminent surgeons, who carefully guard against the occurrence of the accident by crowding the ends of the bones together. Dr. S. cannot, it seems, answer this one of the many objections to the application of extension, by affirming that the muscles cannot be extended beyond their natural length, or else how would he explain the result in the case cited by Dr. Bissell, where weights were used for extension, and where, by the stretching of the muscles, the fragments "separated to the extent of three quarters of an inch." In reference to the good results obtained by this practice as applied to this bone, I can only express my astonishment. The space that I have already occupied I think is a sufficient reason why I should not refer to a few more points in relation to this paper. I hope that the remarks that I have made may not be deemed out of place, for I need not assure you that they are made not with the intention of questioning the skill of Dr. S. in the treatment of fractures, but simply to express my views upon a subject in which I feel the deepest interest.

SPLINT.

DIPHThERIA IN ALABAMA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—This disease made its appearance here during the month of August, 1860. Since that time we have seen between 20 and 25 cases among the blacks and whites. The geological formation upon which we reside is cretaceous. The country towards the east is composed of rich black land, formed by the combined products of the disintegration of the underlying limestone, and vegetable decomposition. Over this region are scattered large sand hills, which afford beautiful sites for the residences of the planters and for the quarters of their slaves. On the west, the country is sandy and flat, being for the most part first and second river bottom. This stratum is what geologists call tertiary. In this instance it overlies the cretaceous rocks which, as stated above, "crop out" on the eastern portion of our district. The first case of this disease occurred in the sandy or tertiary region, and it has been almost exclusively confined to that variety of soil. We have seen only three or four cases in the prairie country, and they were developed on the sand hills before alluded to, where the negroes drink freestone water, and cultivate, in part, sandy soil. They were mild cases, and not clearly marked. Now, can it be that the nature of the soil and the ingredients of the water have anything to do with the development of this malady? The disease, as we have seen it, generally commences with a chill, followed by a fever, which lasts from a few hours to as many days. Synchronously with the chill, the throat becomes sore, and, in some instances, swells enormously. In one case, the owner thought his negro had mumps. The tonsils are the organs principally affected. They first become red and swollen, and then they are soon covered with the peculiar diphtheritic, pseudo-membranous deposit. In its formative stage, it appears as if it had been sprinkled over the gland from a pepper-box, the patches being small and isolated. Soon, however, they coalesce—sometimes with wonderful rapidity—and the whole gland is covered with false mem-

brane, which, in most cases, is confined to the tonsils; but in others it seems not satisfied to be restrained within so narrow limits, and spreads in every direction, even into the larynx, producing alarming symptoms, and frequently death. Fortunately, in no case which has come under our care has it extended beyond the pharynx. The breath is sometimes very offensive. The disease is one of the blood, and consequently involves the whole system; but the local symptoms are so prominent and dangerous as to demand our chief attention. The treatment naturally divides itself into two parts: first, that which is addressed to the system at large; and, secondly, that which is directed to the throat. We begin by opening the bowels with some mild cathartic. If there be torpidity of the liver, or of any of the secreting organs, we give a mercurial, but never with a view to its systemic effect. The disease is asthenic—i.e. the blood is already depraved, and we should carefully abstain from further impairing its vitality by mercury or any other depletive. When the fever has subsided, we direct quinine 4 grs. three times a day, and nutritious but very digestible food. If the fever be of a high grade, we give neutral mixture, spirits of milderorus, sweet spirits of nitre, or any other cooling diaphoretic that may be indicated. We also, in every case, give 10 grs. of chlorate of potash every four hours, internally. To the throat we apply nitrate of silver, in the solid form; cauterize it well at least twice a day, until the false membrane ceases to spread. With children we use a solution of the same caustic, varying in strength from twenty to sixty grains to the ounce of water. The application of the caustic often affords prompt relief, as either the stick or mop will tear up the membrane, which the patient spits up in large flakes, and its further formation is arrested. We next direct chlorat. potass. 3 iv., spring water Qj., to be used as a gargle every four hours. The chlorate performs a threefold office. 1st, it dissolves the false membrane; 2d, it acts as an alterative to the parts diseased; and 3d, as a disinfectant. In less than twelve hours we have known the breath to be completely purified under its use. In addition to the above remedies, we direct counter-irritants to the throat, such as hot turpentine, mustard, etc. Under the above treatment, our patients have all recovered, and with no unpleasant sequelæ, save in one case; and as that is of some interest, and involved in much obscurity, we will give a brief history of it. On Nov. 6, 1860, J. Mc., aged six years, was seized with diphtheria. He was treated with caustics, chlorate of potassa, counter-irritants, castor oil, quinine, etc., as stated above, and was soon relieved from all diphtheritic symptoms. But his general health did not improve; he continued weak and feeble, until about Christmas, when he got a peculiar affection of the throat and air-passages. His voice was much altered; had difficulty in speaking; and when he did speak, his enunciation was imperfect, and the sound of his voice unnatural. His sleep became much disturbed. He would awake suddenly; rise up in bed and scream, as if in great distress. There was some difficulty in breathing. Appetite good; great aversion to solids. Fully as lively and playful as ever. No fever. Throat healthy, as far down as we could see. No tenderness along the spine. He remained in this condition for a week or two, when he began to lose the use of his limbs. He would often fall down; was unable to walk up and down steps; lost, in a great measure, the use of his arms; and appeared as one growing generally palsied. He gradually grew worse, until 18th of Jan., at which time the disease took a change for the better, and since, he has been improving. At first, thinking there might be some inflammation of the trachea involving the glottis, we gave him small doses of calomel, $\frac{1}{2}$ gr. ter die, and applied counter-irritants to the neck. But as soon as he manifested symptoms of approaching paralysis, we changed our tactics, and directed strychnine, gr. $\frac{1}{30}$ ter die, to be gradually increased to gr. $\frac{1}{40}$, the salt and water bath, a glass of wine three times a day, full diet, rest, and frictions along the spine. Latterly we have been giving muriated tr. iron, 4 drops ter die. Under this

treatment our patient has greatly improved; but he is not well yet. Can his disease be a sequel to diphtheria, or is it an idiopathic affection of the spine?

B. P. HUNTER, M.D.

N. FRIEND, M.D.

BOLIGEE, GREENE CO., ALA., Feb. 15, 1861.

ANÆSTHETICS IN USE PRIOR TO THE YEAR 1600.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I send you the following, which I have recently met with in my reading. The poet does not state whether the anæsthetic was a *patented article*. What will henceforth become of the claims of Wells, Jackson, or the *immortal* Morton?

[From Du Bartas (1590), translated by Joshua Sylvester:]

"Even as a Surgeon minding off to cut
Some cureless limb: before in use he put
His violent Engins on the vicious member,
Bringeth his Patient in a senseless slumber;
And griefless then (guided by Use and Art),
To save the whole, saws off th' infested part.
So God empal'd our Grandsire's (Adam) lively look,
Through all his bones a deadly chillness strook,
Sle'd up his sparkling eyes with Iron bands,
Led down his feet. (almost) to Lethe's sands;
In briefe, so numm'd his Soule's and Bodie's sense,
That, (without pain) opening his side, from thence
He took a rib, which rarely He refu'd,
And thereof made the mother of mankind."

J. G. A.

DOMESTIC CORRESPONDENCE.

PHILADELPHIA.

March 13th, 1861.

THE most important topic prevailing, now that the winter session is over, is the vacancy about to occur in the Jefferson Medical College by the resignation of DR. CHARLES D. MEIGS. A vacancy in that institution always produces a sensation, and attracts medical aspirants from all parts of the country, and as it is admitted that a Philadelphian is to be selected for the post, the competition is running high among us.

A professorship in the Jefferson College gives, of course, at once an eminent position, and secures to the incumbent the highest revenue of any similar position in the country, and as the profession, as a class, have a high appreciation of the latter item, it is not to be wondered at that the competition is exciting.

A real successor to the crude and polished gentleman who is about to quit the field of his toil and triumph, is hardly to be expected. It would be difficult to find another who combines with such classic learning and elegance of manner, so much that is genial and which insures respect from and endears to those around him. His style is truly unique yet very popular; perhaps not always sufficiently didactic, but he can for hours maintain the attention of the class on subjects wherein a routine teacher surely fails, and I have never known another obstetric teacher who was in the habit of indulging witticism before the student without tainting it with vulgarity.

In Europe such positions seem to be supplied by a kind of consent by juniors who grow up alongside, and finally, when a vacancy occurs, fall naturally into the place; or the successor seems almost pre-appointed in some second in rank. Certainly there is not such a scramble as with us; but that style would not be in accordance with our democratic character, and a free run for every place is a national characteristic.

Although, as I have said, it seems to be acknowledged that the position is to be given to a Philadelphian, yet there are some names from abroad mentioned in connexion with it. Among these are DR. MILLER of Louisville, and DR. BYFORD of Chicago. The most prominent Philadelphia names in the canvass, are DRS. E. WILSON, W. V. KEATING, D. GILBERT, J. L. LUDLOW, E. WALLACE, and L. D. HARLOW.

Dr. Wilson has been a private teacher of obstetrics for many years, and succeeded the well known Dr. Warrington in his private school. He has had extensive practical opportunities, but certainly lacks the attainments of a scientific and literary character which would fit him for the post. Dr. KEATING has taught obstetrics in an unimportant position; he is a gentleman of education, but has not the popularity with the profession in this city, which should be brought to the position he seeks. Dr. GILBERT exceeds the other applicants in years, and is the only one who is much known beyond the limits of the city. His name has been but recently announced for the chair, but his popularity has rapidly raised a strong feeling in his favor. He was esteemed as a teacher while in the Pennsylvania College, and appears in every view the most available candidate for the place. Dr. LUDLOW is an accomplished gentleman, with a polished education. He is not much known as a teacher, although he would doubtless be well suited for the chair. Dr. WALLACE is the present Demonstrator of Anatomy in the college, and is pushed for the place by a portion of the faculty, with what object, or with what fitness for it, is incomprehensible. Dr. HARLOW is the present Professor of Obstetrics in the Pennsylvania College, where he is popular, and is certainly a good teacher.

In these troublous times it may be supposed that the Trustees of the College will be extremely politic in their choice. I believe that the real good of the institution will alone influence them in place of any personal bias which they may have—but we will soon see.

Truly yours,

NEMO.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

SEVERAL acute cases of Bright's disease of the kidneys have been in the Infirmary, and have done remarkably well under the free use of the bitartrate of potass. It has astonished me a good deal to see the very rapid recovery of two or three of these cases. In commenting upon a case of partial paralysis, Prof. Bennett remarked that strychnia had been brought into use in that disease on account of a theory, and that, although he had used it extensively, he had never yet seen it do any good in paralysis. In cases of small-pox there is used here a plaster upon the face which prevents the pitting, and also diminishes the local and general distress in a remarkable degree. As the plaster contains no mercury, there is no danger of salivation arising from its use. The formula is as follows: R Zinci ^{sublim.} 3 parts; Zinci oxyd. 1 part; to be rubbed in a mortar with olive oil to a proper consistency.

Several very interesting cases of phthisis have been in the wards lately. The history of each case shows the fons et origo of the disease to be overwork, exposure, or slow starvation. One, on listening to the melancholy histories of these cases, can form some idea of the struggle for life that is continually going on among the poor and down-trodden in these old countries. Their condition is dreadful, and it seems almost hopeless. Not only in the cities, but also in the country, men, women, and children are herded together in miserable hovels, which, built of stone, do not admit of that effectual purifying which a seemingly unfortunate, but in reality fortunate, sweeping fire causes in our large towns. Then, again, the absence of appetizing food, the utter ignorance of the many luxuries of the table common among the poorest in America, the almost entire want of cooking facilities, and the want of light, arising from the influence of the old window tax, all these things render the resort to alcoholic beverages almost a foregone conclusion. The poor man here, aye, and the poor woman, and still poorer, pinched, and starving child, drink, not to drown dull care, but to drown hunger, cold, and wretchedness. They struggle on wretchedly for a few years, and then are driven to the hospital, whence they seldom pass

except to the workhouse or grave. There are no old men here among the poor. A man of sixty years of age, I know by actual inquiry, is very rarely found. Some months since, I went with a surgeon of this place to Falkirk, to remove the thigh of a man sixty years of age. I noticed that he was spoken of as *the old man*, and on inquiry, found that he was considered very old. Dr. Druitt, of London, was with us, and remarked, what a noble work it would be to undertake seriously to bring to the notice of the world the down-trodden, famishing, brutalized state of the poor. He wished to know what the poor with us got for bread, and was much surprised when I told him they had the best of wheat. He evidently hardly believed me. Pardon this digression from the proper subject matter of my notes. It is hard to see so much wretchedness without mentioning it. The limb of the old man was adroitly removed, just above the knee, by the circular operation, and after an unsuccessful attempt to arrest the hæmorrhage by acupressure needles, the arteries, or rather artery—for only the femoral bled—were tied, and the patient placed in bed. He made an excellent recovery. The large size of the knee had led several who saw it to pronounce it a malignant tumor. Mr. Edwards, however, who was the operator, pronounced it before the operation, to be ulceration of the cartilages. On examination after removal, his opinion was found to be quite correct. The soft tissues, however, around the joint were greatly thickened, and a hard bunch on the anterior and lower aspect of the joint, which before the operation had presented exactly the appearance of the lower part of a fractured patella, was found to be the bursa patellæ in a state of cartilaginous degeneration. Mr. Syme recently operated for the restoration of a young woman's nose, by taking ample flaps from the cheeks just by the side of the nose, and simply sliding them forwards to their place. In this way all twisting of the pedicle is avoided, and the risk of sloughing reduced to a minimum. The wounds in the cheeks are readily closed by sutures, and leave surprisingly little deformity.

Medical News.

APPOINTMENT.

Dr. GEO. SUCKLEY has been appointed Clinical Registrar to the New York City Hospital.

MARRIAGE.

WILLARD—SPENCE.—At the residence of the bride's brother, March 5th, by Rev. Dr. Green, of Nashville, SYLVESTER D. WILLARD, M.D., of Albany, N. Y., to Miss ELLEN SPENCE, of Murfreesboro, Tenn.

DEATH.

HARRIS.—At Philadelphia, on March 4, THOMAS HARRIS, M.D., in the 78th year of his age.

DOMESTIC ITEMS.—Drs. Hawthorne and Loryea, of the Portland Hospital, Portland, Oregon, have issued the prospectus of a new medical journal—first number to be issued February, 1861.—*The New Orleans Medical News and Hospital Gazette* has changed its name to *New Orleans Medical Times*.—*The Louisville Medical News* is suspended, as also the *Georgia Medical and Surgical Encyclopedia*.

FOREIGN ITEMS.—Dr. William Jenner, Physician to University Medical College Hospital, London, has been appointed Physician to the Queen in place of Dr. Baly, deceased.—Sir William Burnett, late Director General of the Medical Department of the English Navy, died Feb. 16, aged 82.—At an inquest on the bodies of four men who perished in Fleet-Lane sewer, Dr. Letheby gave it as his opinion that they had died from the effects of sulphuretted hydrogen, suddenly discharged into the atmosphere of the sewer.

Original Lectures.

LECTURES ON DIPHThERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE I. PART I.

False membrane on mucous surfaces.—Definition of the term Diphtheria.—General and microscopical characters of the membrane.—Duration of the disease.—Diphtheria on the vaginal and rectal membranes, and cutaneous surfaces.

GENTLEMEN:—It is now several months since I consented to the publication of these lectures. That consent was yielded, while yet there seemed to be a call for a succinct and connected history of a disease, with which many members of the profession had not become familiar. Since that time, many valuable papers relating to this affection have appeared in the medical journals, and Greenhow's treatise "On Diphtheria" has been published, and reprinted in this country. This book so nearly exhausts the subject, and so fully supplies the professional want, that I would now gladly withdraw my promise. The idea does not strike me pleasantly, of printing again what has been so well and so recently stated, even though what I have to say is based on independent study, and observations, which were nearly completed before either this treatise or these papers fell into my hands. But, whether what I have to tell you is to be reported and published, or not, it is my duty to present to you a view of this disease, that will serve you in practice, no matter what may have been said about it before.

The mucous membranes of the body are very many of them liable to a kind of inflammatory action, which causes the exudation upon their surfaces of a plastic material, that forms into a membrane. It is but a day or two ago that I had occasion to say, that such productions are to be found, under certain circumstances, in the bronchial tubes. Here is a specimen that will illustrate this fact: these little threads are all tubes, and were expectorated in the disease described to you the other day as fibrinous bronchitis. The mucous membrane of the hepatic ducts may take on this character of inflammation, ending in the production of a membranous material. Here is a small tube, branching, as you see, in different directions, which was taken from the stool of a boy, who had suffered a great deal from pain in the right side. You recognise this membrane, on examination, as coming from the ductus communis, and the branching corresponds with that of the cystic and hepatic ducts. Here are some tubes of considerable size, taken from the faeces of a colored woman, who would also have paroxysms of severe pain in the right side, and when these paroxysms had subsided, the stools, over and over again, were found to contain these macaroni-like tubes in great quantity, which upon examination proved to be membranous exudation from the enlarged hepatic duct. A disease has long been known under the name of croup, in which fibrinous material has been formed in the air-passages, and has produced death by suffocation. Here is a membrane which was six inches in length, and the full size of the trachea and larynx, of a boy twelve years old. It is what would have been called at any former time croupous membrane. It was removed by tracheotomy and the forceps. Here is another membrane of the same character, the false membrane of croup. Here is a more delicate membrane of the same kind, which was coughed up during life, and the child subsequently recovered. It is no new thing, then, that we have to consider a disease, the essential element of which is the production of false membrane upon a mucous surface.

There is some vagueness in the use of the term diphtheria, which it is best for us to settle in the beginning. While diphtheria prevails, it is usual to have at the same time a sore throat prevailing epidemically, which has but little tendency to the production of membrane. As these two forms of disease are apt to go together, physicians have been somewhat in the habit of grouping them under one head, considering them both diphtheria. It seems to me important that we separate them, for this reason—that the form of sore throat which is not attended by the production of membrane, is a mild disease, and is almost never fatal; in this respect, as well as in its symptoms and sequences, forming a strong contrast with the symptoms and sequences of the true diphtheria. The history of the two diseases seems to me to be sufficiently distinct to enable us to refer them to two different classes, notwithstanding they prevail together, and seem to be produced by the same influences.

The disease from which I would have you distinguish the membranous affection, commonly shows itself with a febrile movement, often with some external swelling of the glands of the neck, with a good deal of swelling of the tonsils, oedematous uvula, and general inflammation of the fauces. The tonsils are usually large, red, and shining; and their follicles will very often contain a white or yellowish white material, forming grains, ranging from the size of the head of a pin to that of a small pea. They are fairly imbedded in the tonsils, and you may sometimes see a portion of them through the dilated and translucent tissues, which forms the mouth of the follicle. Now this is not diphtheria. It is not a dangerous disease. It is exceedingly rare that persons die of it. The very term diphtheria implies the existence of a false membrane; and we must limit the signification of the word to such forms of inflammation as terminate in, or have in their course, this membrane as a sign. We have no other fair standard of comparison for cases, as they occur in different places, and as they are reported in different modes of practice. In this sense, and in this only, you will understand me to use the term, whether we are considering the throat, and the passages leading from it, the uterus or rectum, or the cutaneous tissues.

Before we consider the symptoms in any detail, I desire to present to you a distinct view of this false membrane. You will probably be in no way able to form a better idea of it, than by the examination of these rather extraordinary specimens; two casts in one bottle. They are long membranes forming in the fauces, reaching down through the larynx into the trachea, and thence branching out into the bifurcations of the bronchial tubes. One of these is thicker than the other, though they are both nearly the same in extent. The thicker one was expectorated after about four days' illness; the second, being the re-formation of a similar production upon the same ground that produced the first, was expectorated after an illness of six days more. The child finally died. This perhaps you will say is croupous membrane, judging from its appearance; but now occurring in the midst of an epidemic we call it diphtheritic membrane. Here again you will see something of the character of this production. Here are ribbons of varying width, that were half vomited, half coughed up, by a young lady twenty-one years of age, who finally died of suffocation through tracheal diphtheria. These, however, evidently did not come from the trachea, but from the oesophagus, and have been torn into ribbons by the vomitive effort, which resulted in their expulsion. You will see it in the character of the membrane. Here again are some little pieces of a membrane, that formed on the tonsils in a case that I shall, by and by, refer to again, as occurring in Dr. McCready's practice, in which there was a membrane upon the fauces, but nowhere else at first; the child died of exhaustion, without the least oppression in breathing. This membrane is very thick, being nearly two inches in thickness, while some of those specimens which you have previously examined are as thin as ribbons. Here you will see the larynx, trachea, and bronchial tubes, laid open into the lung tissue. This specimen was taken from the body of an adult, and will

enable you to judge of the direction that this membrane is disposed to take when it follows the air-passages: formed in the fauces, it has descended by the larynx, through the trachea, into the bronchial tubes, and can be followed down as far as they can be opened with the scissors. It has entered the right bronchus further than the left.

It forms, then, most commonly, in the fauces; usually upon the tonsils, or upon the uvula; often upon the inside of the swollen tonsils and upon the uvula at the same time. From this it may extend either backwards into the nares, and line the nasal passages; or downwards into the œsophagus, forming a lining membrane to that tube; or still more dangerously, downwards into the air passages, as seen in this piece; still it is pleasant to know, that in a large proportion of cases it does not extend beyond the fauces. But wherever it occurs, or however formed, the membrane is substantially of the same material.

I cannot prove this fact to you better than by reading the memoranda of microscopical examinations of this substance, made two years ago.

The first is from a case reported by Dr. Allin, in the *American Medical Times*, as occurring in the practice of Dr. Vedder. The membrane was from the larynx, bronchial tubes, and œsophagus. Although the membrane is quite soft in the larynx, and quite firm in the bronchial tubes, it contains the same microscopic elements in all its parts. These elements are—cells, granules very sparingly, but firm fibrillation, and a matrix to hold the cells and granules together. You, perhaps, will not appreciate the meaning of all this, unless I enlarge a little upon it. A membrane, anywhere, must have structure that will hold it together; if there are fibres, it is all that is necessary. When, however, there are no fibres, you may have a continuous membrane through the formation of a material which is almost entirely transparent, and at the same time structureless, appearing under the microscope very much as glue does to the naked eye. Now there is in some productions, and in this particularly, not unfrequently a structure made by or taking the form from this matrix. Into this structureless material granules and cells are set, and they are kept in the form of a membrane by that, and that only. Thus, then, you have two different modes of producing this membrane. But I will go on. The cells are of the size of pus cells, and some are really pus, but much the larger number are flat, either unucleated or not, and of irregular outline. In the œsophagus a few are elongated, and a still smaller number are produced at one extremity into a thread—that is, as if they were to form membrane by this metamorphosis. Here, in the œsophagus, the adhesion of the membrane was so strong, that when torn off it brought some of the original tissue with it.

In three fields I found but one of the larger flat cells so common in ordinary croup. In that disease, cells are often seen; at first rounded with a pretty large nucleus; then oval; then elongated, and applied to each other side by side, to make a sheet of membrane; after which it is presumed that they gradually split into fibres, as indicated upon the blackboard. That mode of production is not frequently seen in diphtheria. I could find no animalcules nor vegetable production of any kind. This fact is important to bear in mind, because it has been said that the tissue is composed of vegetable matter. In the vomited matter are fragments of the membrane, corresponding in structure to that lining the œsophagus. The smaller cells, as you see in this diagram, are a little peculiar in their outline—some are nucleated, and some are not; all about the size of pus corpuscles, but flat.

The following is a report of another specimen, sent me by Dr. R. Watts, Jan 8, 1859:—A portion taken from a point about one inch below the larynx, which seemed to be the inferior termination of the false membrane, was firm, elastic, and tough. It was differently constituted in different parts. A small portion was composed of coarse, imperfect fibres, which retained the elongated cells, out of which it had been apparently formed; but a very much

larger portion was constituted of fine, silky fibrillation, pretty firm and strong, such as we see in the washed blood-clot. Still in another portion there was an aggregation of very fine granules, held firmly together, but without any trace of structure. In all these parts could be seen a few flat cells, of the size of pus globules, as in the specimen sent by Dr. Vedder. But on the outer, or attached surface, of the firmer membrane, was a layer of these bodies, mingled with pus cells, and a few large fat cells. This layer was, perhaps, the cause of the separation of the false from the natural membrane. Fine fibrillation is the prevailing feature of the piece, in the midst of which granules so abound, as to be the next most prominent characteristic. These granules do not exist in any abundance in the part which most resembles ordinary croup. There are some oil globules. In the pharynx this production is of a greenish brown color, while that from the trachea and larynx is a pinkish white. This portion of the exudation is soft, and easily detached; it can be taken up with the forceps, as if it were a thick paste. It is composed of epithelia, of the pavement variety, in sheets; of cylindrical ciliated epithelia, from the air passages; and of the cells, of the size of pus cells, but flat; of pus corpuscles in small proportions; of hematoidine, and epithelia stained with hematoidine; but it contains no fibres of any kind. There are a few minute vegetable spores, but no mycelia. The essential constituents of this part of the exudation are granules and cells, either rounded or flat, of the size of pus cells. The other elements are accidental.

A portion of membrane taken from the right bronchus does not differ essentially from that taken from the trachea, except in the greater abundance of the large flat cells of croup. A piece from the pharynx, near the œsophagus, is fibrillated, like that of the trachea, and granular. It contains the small flat cells; it is, however, thickly covered with small vegetable spores, of an unknown variety, perhaps the small forms of *penicillium glaucum*.

A third specimen is from a colored girl, æt. 17. The membrane filled all the air tubes in the right lung; there was more in the œsophagus. It is thick and firm, composed of fine silky fibres, running in the direction of the length of the tubes. In some parts the fibrillation is uncertain, on account of the fine granules, which appear partly to form, and partly to cover it. At a few points the fibres are larger, and here and there may be seen attempts to convert cells into fibres. There are very few pus or flat cells in the specimen; those which exist appear mostly on the attached surface; no vegetation. The membrane is mostly removed from the parts above the vocal chords, leaving the tissue red and warty. Here it had lost the firm dense character of the structure below; it is composed of pus globules in considerable proportion, and some flat cells. The fibres still exist, but in greatly diminished proportion; they are fine, like those of blood-clot. There are a few small flat nucleated cells. It is noticeable that these small cells are to be seen mostly upon the attached surfaces, and mingled with pus cells. They are seen so much more frequently in old membranes than on those more recently formed, that it is probable that they are reparative cells, and that the pus was the part of the secretion that caused separation from the mucous surface. I may further remark, before leaving this branch of the subject, that not unfrequently vegetable spores, as you have seen, in considerable quantity will be found upon the exposed surfaces; it is in the older membranes that this occurs, but the newer ones do not show it; the inference is, that this is an accidental production, after the membrane has formed.

Such is the material which constitutes the much talked-of membrane of diphtheria. It is almost always at one time or another pretty firmly adherent to the tissues on which it lies. You will see in this figure, which is intended to illustrate the formation of a membrane, shrunken somewhat, little prominences standing out upon the outer side, or attached surface, which have fitted themselves to the follicles of the mucous membrane, thus attaching the new

issue pretty firmly to the original structure. Often enough when in the recent state these are removed forcibly, a little blood will flow. After a time, when the membrane is about to be separated, there is a secretion, partly purulent and partly mucous, which forces it off from its attachment. When separated, it will be renewed, portion by portion, in the form of tubes, as seen in the specimen you are examining.

The duration of this disease—that is to say, the time during which the membrane will remain attached—is very different in different cases. Sometimes it will fall off of itself in one or two days from the time it was first observed. Dr. Noyes watched a case for twenty days, during the whole of which time the membrane remained attached to the fauces. It is, however, very common to observe the membrane fall off, after a duration of from one to two, three, or four days, and re-form in the same place. This is true of all parts of the mucous membrane that I have referred to.

In saying to you that this membrane forms upon the fauces, nasal passages, pharynx, œsophagus, and air-tubes, I have not told you all that is true about it. The same kind of structure seems to be produced, under epidemic influences, upon other than mucous surfaces. Trousseau has collected a considerable number of cases, in which it was seen upon the vagina, on the vulva, in the anus; I have myself seen it in both these places, and extending by a sort of bridge between the anus and vulva, the whole of the tissue being very red, and secreting an ichorous matter. It has been observed upon blistered surfaces, where blisters had been applied either for the purpose of preventing the disease or arresting its progress. It has been noticed upon leech bites; upon the ulcers that occur in certain cutaneous diseases of the head; in abrasions that are not infrequent behind the ears of children. In most of these cases it has occurred at the same time in the throat, but not in all. M. Trousseau refers to twenty cases of this class, thirteen being cases in which there was no membranous infection of the throat, while in seven the throat disease existed at the same time; in most, preceding, in one (tinea capitis) following, the cutaneous diphtheria. They occurred as follows, viz.:

	Died.
On the scalp engrafted on favous ulcers . . .	1 1
On the same, with malignant angina . . .	2 0
On a surface blistered in the treatment of malignant angina . . .	2 0
On a surface blistered as a precaution and protection against malignant angina . . .	2 1
On the abdomen, after leeches, no malignant angina . . .	1 0
In an inflamed breast, accidentally infected .	1 0
Extending over the breast, from nipple, from nursing a diphtheritic child . . .	1 0
On the skin, several diphtheritic ulcers . . .	1 0
On the side of neck and face . . .	1 0
On excoriation behind the ear . . .	1 1
“ of scrotum . . .	1 0
“ of toe . . .	1 0
On the vulva . . .	1 1
“ hand, foot, and in the throat . . .	1 1
On and about the anus, etc. . .	1 1
On the prepuce and in the throat . . .	1 0
In the vagina; question of syphilis. . .	1 1

In every one of these cases, whether there was malignant angina or not, the persons who had these affections were in the midst of the common forms of diphtheria; often had slept with one or more diphtheritic patients. In nine instances the subjects were either father or mother of such children; in one, a nurse. There is no instance among these twenty, or among several more whose cases are supposed to be similar (but on other than professional evidence), in which the membranous infection occurred in this manner, that the subject of it had not been freely exposed to the influences of contagion.

Original Communications.

DIFFICULT OBSTETRICAL CASES,

BY GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

(Continued from page 143.)

CASE XL.—*Forceps and Perforator for Deformity of Brim.—Mother did well.*

Mrs. —, menses ceased Jan. 8th, confined on 25th Oct. 1860, under the care of Dr. Sabine. Diminution of antero-posterior diameter of brim from projection forwards of promontory. Her first labor was terminated with forceps, after it had lasted twenty-two hours. Child weighed nearly ten pounds, and is now nine years old. The second child weighed about ten pounds at birth, is about seven years old, and was also delivered with forceps after a labor of eleven hours' duration. Her pains were slight during the whole day, but became more severe towards night; at 2 A.M., Dr. S. applied forceps to the head retained at the brim, but without effect, and sent for me at 3 A.M. I found the head above the brim, dipping the arc of one parietal bone into the superior strait, but quite movable; and asked permission to make an effort with forceps, which was readily granted, and the forceps easily applied, but it was not possible for me to succeed any better. Fœtal heart inaudible. I then delivered a large child after opening the head, memorandum of weight lost. Mother has done well since (Feb. 1861).

CASE XLI.—*Convulsions.—Forceps.—Still-born Child.—Mother died.*

Hannah Lanc, aged 20, first, L.O.A. In labor three hours. Still-born female child, seven and a quarter pounds. Dr. Chas. Phelps, House Surgeon, Bellevue.

First seen by Dr. P. at 7 P.M. in a convulsion, which was rapidly followed by others with decreasing intervals of rest. In these intervals she was at first conscious, but soon became utterly insensible. Urine loaded with albumen. Sp. grav. 1011. Olei tigllii crotonis gtt. j. I saw her at half-past nine, breathing oppressed, frequent, and stertorous, mouth covered with foam, tongue protruded, pupils contracted. Conjunctivæ suffused, face persistently livid, lips markedly so, tongue very dark. Pulse 148, laboring and very hard. Uterus dilated to the size of half a dollar, thin, somewhat rigid and undilatable. Membranes ruptured, though much liquor amnii remained. Head in first position—fœtal heart inaudible. While observing these facts, another convulsion of a very violent epileptiform character occurred, ushered in by pleurosthotonos. Both arms of the patient bore traces of previous venesection. Under these circumstances, Dr. Taylor (who had arrived) concurred in recommending venesection, and Dr. Phelps took about 3 xx pleno rivo from the arm; after this the pupils dilated, lips and tongue became much paler, but the pulse very feeble.

She was then carried carefully into the Lying-in Ward with her head down. Pains continued strong, and in about three quarters of an hour the os had dilated sufficiently to admit the forceps, and I delivered her with forceps of a still-born child. No convulsions after delivery, but the patient remained in a semi-comatose and very restless condition until 5 A.M., when she died.

Memorandum of autopsy not preserved.

CASE XLII.—*Forceps for Danger to Child.—Both did well.*

Nov. 1857—Mrs. —, aged 23, first, L.O.A. Pains good, parts well relaxed, os dilated, head in inferior strait, patient under chloroform. In short, everything promised a natural and easy labor. On auscultating the fœtal heart—as it is always my habit to do from time to time—I was surprised to find it growing slow and feeble. As it did not rally, I requested Dr. G. A. Peters (who was in the vicinity) to manage the chloroform, and I delivered a living

female child, quite livid, partially asphyxiated. Revived by the customary means.

CASE XLIII.—Forceps for Arrest of Head in superior strait from extension of head.—Child dead before their application.—Death of mother in fourteen hours.—Fatal symptoms believed to have set in before delivery.

Bellevue; Dr. Elisha Kinney, House Physician. Joanna Hagnan, married, aged 29, first confinement. From May 9th 5 A.M., 1859, to May 10th, 4 P.M., girl, eight pounds, still-born. Occiput to left.

Everything progressed well, but slowly, for about twenty-two hours, when the membranes ruptured. Partial descent and then arrest, when the head remained stationary for fifteen hours. I was then sent for, and found that the chin had departed from the breast, and that the anterior and posterior fontanelles were in the same plane. Sagittal suture nearly transverse, post. font. to left. Not being able to move the head, and the woman's condition demanding relief, I applied forceps. Fate of child as yet doubtful. There was no room to apply the second blade unless by carrying it directly to its position behind the right acetabulum, which was accordingly done; the blades were readily locked, and the delivery effected without their slipping. Bladder previously emptied—chloroform. The condition of the funis showed that the child must have been dead for several hours. The placenta came away readily, but the uterus did not contract well, and there was a considerable amount of post-partum hemorrhage before ergot and ice brought about contraction. Patient came sluggishly from under chloroform, surface cool, pulse weak, and died in fourteen hours.

Autopsy.—Heart normal, lungs do., old pleuritic adhesions both sides. Intestines tympanic. Parietal peritoneum intensely injected over uterus. Uterus moderately well contracted. Sinuses filled with coagula. No pus discovered in them. On the inner surface of the uterus posteriorly, and inferiorly, one or two spots puriform in appearance, not examined microscopically. Pus in one fallopian tube. Posterior wall of cervix on the right side torn obliquely to the peritoneal coat; this not involved. Liver undersized and apparently fatty. Kidneys both fatty, spleen normal. It is interesting to note, that from the nature of the application, neither blade of the forceps went in or near the position of the lacerated cervix. This I believe to have been one of those cases where metritis commences during labor, an occurrence seen occasionally in Lying-in Hospitals.

CASE XLIV.—Forceps for Delay.—Long projecting ischiatic spines.—Both did well.

In 1853, I was requested to take charge of a lady in her first confinement, as she apprehended trouble from the fact that her twin sister had been delivered with forceps.

She requested me to tell her whether there was reason to expect any difficulty in her case, and to promise that she should not be allowed to suffer any of the pains of labor. On examination, I found that the pelvis seemed well formed, but that the spines of the ischia were unusually long and approximated. When she fell in labor the movement of descent was rapidly completed, after which the head stopped, and did not advance for several hours—pains good. I then delivered her of a living child with forceps without a consultation, no laceration whatever of fourchette. She was under the influence of chloroform some twelve or fourteen hours in all.

Nowadays, I never positively promise that a patient shall know nothing of her labor, because we meet with a certain number of patients in whom the pains are diminished by chloroform, and it happens to me, once in a while, to be obliged to allow the patient to awaken in order to obviate this cause of delay. In Bellevue, chloroform is scarcely ever given unless for an operation, convulsions, great rigidity, or some special reason. In private practice, I always use it unless the patient or the husband object, or unless there be some special contra-indication, an event of rare occurrence.

In looking over the recent discussion in the London Obstetrical Society, I was surprised not to find any allusion to an argument for anæsthetics which is very powerful with me in difficult labor, viz. that the patient cannot recall again and again the sufferings through which she has passed. At one time, I used to think it better that they never should be told, even after convalescence, of the cause of trouble, but as I never knew one without a relative or friend kind enough to give full information, it now seems to me better that the husband or physician should tell them everything in the way least likely to alarm.

CASE XLV.—Forceps for Exhaustion of Mother.—Approximation of ischiatic spines.—Mother and child did well.

Feb. 8th, 1861, Bellevue. Dr. Erskine Mason, House Surgeon, in charge.

In this patient—a primipara—no advance had been made since the evening before, membranes unruptured, fetal heart beating, head presenting first position, descent not completed, soft parts in good condition. The mother was much exhausted, feeble pulse, hoarse voice, suspicions of phthisis. Ruptured membranes, liquor amnii scanty, like diluted molasses, no odor, probably colored by meconium. On examination, the spines of the ischia were found to project unduly; first blade very readily passed, second had to be carefully placed in position behind the right acetabulum by direct application, the customary spiral movement being impossible. To deliver, it was necessary to slip the pivot down two holes below the point where I had first placed it, as some compression was necessary. Child born living; weight, seven and three quarter pounds, somewhat marked and bruised by the blades. No injury to perineum. March 6th.—Both have done perfectly well. Traces of forceps disappeared.

In this case stimulus was given before Dr. Rives brought her under chloroform.

CASE XLVI.—Forceps.—Mother and child did well.

Mary Brown, English, single, aged 20, first confinement. Oct. 18th, 9 P.M., 1856, Bellevue. Labor commenced L.O.A. Terminated Oct. 20th, 1 A.M.

Forceps in superior strait. No memorandum of reason. Male child living, eight pounds. Both did well. Chloroform.

CASE XLVII.—Forceps for Delay.—Mother and child did well.

Mrs. —, a young primipara—post. font. to left, descent nearly completed. Saw the patient at Dr. Van Buren's request, and we waited several hours, when there being no advance, I delivered her with forceps of a living female child. Chloroform.

CASE XLVIII.—Forceps for Delay.—Mother and child did well.

Dr. Bishop sent for me to a primipara in lingering labor, head presenting L.O.A. No progress for the whole day. She absolutely refused an anæsthetic, and I delivered her of a living child without chloroform.

CASE XLIX.—Douche.—Forceps.—Death of mother from puerperal fever one month afterwards.—Child living.

H. Q., aged 32, first pregnancy—Bellevue—Dr. Benj. Lee, House Physician. Labor commenced April 9th, 1857, at 6 P.M., L.O.A., terminated 10th, 10 P.M. Os undilatable, head neither engaged nor advanced satisfactorily. Two warm douches enabled the forceps to be applied. Female living child weighing nine pounds. Chloroform.

CASE L.—Forceps for Contracted Brim.

Cath. White, aged 18, first confinement, Bellevue. Dr. Jas. H. Bird, House Physician. In labor from March 18th, 1859, 10 A.M., to March 19th, 12 M. The head was grasped between the promontory and pubes in a contracted antero-posterior diameter. Delivered with forceps a living boy weighing six pounds, ten ounces. Chloroform.

CASE LI.—Feet, Funis, and Head Presentation.—Version.—Child dead before the operation.—Mother recovered.

Mary Powers, Dec. 11th, 1853. Lying-in Asylum. Out-patient. Report condensed from the notes of Dr. Wm. H. L. Starks, under whose care she was placed.

Dec. 10th.—At midnight labor commenced. Second confinement. Membranes descending into the vagina like the "finger of a glove." Os somewhat rigid. Funis and feet found to present. Funis pulsating feebly. 7½ A.M.—Membranes ruptured. Liquor amnii less than usual. Pains scarcely returned until 4 P.M., when they gradually resumed their frequency and force. The funis had defied all attempts at reposition. I was then sent for by Dr. Starks, and arrived at about seven o'clock, and found the feet, funis, and head presenting first position. *Funis pulseless.* The patient having been brought under chloroform, I delivered by the feet, bringing the face in the hollow of the sacrum. Child still-born. Cold, pressure, and 3 vj. of the saturated tincture of ergot contracted the uterus. Hemorrhage slight. Perineum somewhat lacerated. By the 22d she was able to go about the room, thanks to the very thorough care and prompt attention to every symptom of a threatening character rendered by Dr. Starks.

CASE LII.—*Twins.*—Version.—One living.—Mother did well.

Sarah Burns, aged 31, fourth confinement, October 4th, 1852. 1. Vertex—born alive. 2. Left elbow—still-born—twenty-four hours in labor. Placenta weighed three pounds. Lying-in Asylum.

October 3, four P.M., os uteri fully dilated. Pains insufficient. Fœtal heart audible. Disposed to sleep. Allowed to pass a quiet night. In the morning fœtal heart undiminished in force and frequency, and mother's condition good, gave tr. of ergot, which quickly expelled the first child. The second presented the left elbow—no fœtal heart audible, but so loud a uterine souffle as to make the negative result unsatisfactory. Sent for Drs. Cheesman and T. F. Cock. Having waited an hour for them I proceeded to turn in the presence of Drs. Geo. A. Peters and T. M. Cheesman, the woman having previously taken some stimulus, and been brought fully under the influence of chloroform. Having first brought the hand externally to the vulva and satisfied myself regarding the position of the fœtus in utero, I introduced my right hand, and delivered. Child uninjured, dead, without the least trace of pulsation of its heart. Patient did well subsequently, requiring only vaginal deodorizing injections.

CASE LIII.—*Albuminuria.*—*Convulsions.*—*Death in next pregnancy.*

Mrs. —, a patient of Dr. Bolton, forty odd years of age, seven months gone in her fourteenth pregnancy, has had no trouble in any former confinement. She now suffers (Jan. 1858) with amaurotic symptoms and headache. Quite puffy. Jan. 11, 1858.—A convulsion. Bled by Dr. Bolton, with great benefit, who consulted me regarding the case. Urine coagulated by heat and nitric acid, and presents microscopically evidences of advanced Bright's disease. 25th.—Called to her suddenly in the absence of Dr. B. and drew off half a chamber full of urine. Same appearances. In consultation premature labor decided upon. Feb. 3d, 1858.—The day fixed for the operation. Patient naturally delivered during the night of a still-born child without any difficulty. Chloroform given by Dr. Bolton, who was in attendance. March 12th, '58.—General condition very satisfactory. Puffiness gone. Dr. B. has fully explained to the husband the nature of his wife's disease, and given it as our opinion that another pregnancy would be dangerous in the extreme. Aug. 16th, '58.—Complains that she sees everything divided in four parts. Enchanted, however, with her condition, because a well-known physician of this city had seen her while out of town, and after hearing the history of her case examined some urine for albumen, and not finding any, told her that she would undoubtedly do well. This gentleman subsequently told me himself that he had made no other examination.

June, 1859.—Dr. Bolton left town and consigned this lady to my care. To my great regret, I found her far advanced in pregnancy; not at all apprehensive in consequence of the opinion just alluded to. The urine was albuminous, and microscopic examinations by Drs. Gouley

and Clark confirmed the previous diagnosis. June 31st.—She was attacked with hemiplegia of the right side without loss of consciousness; the attack was a mild one, and she greatly improved. Spirits unimpaired. I now desired to induce premature labor, but did not consider it advisable to bring it on until her nervous system had recovered more thoroughly from the shock. 9th.—Patient's condition greatly better. Sat up in bed and took her supper cheerfully. Towards morning I was called, and found her with a second attack of hemiplegia. Capable of being roused, but otherwise sleeping soundly and breathing stertorously. No convulsion. Dr. Cheesman called in consultation. On the 10th, seeing that the case was hopeless, and the fœtal heart still beating, I introduced a sponge tent within the cervix uteri, which was rigid, although somewhat dilated—as was to have been expected—and visited her frequently to take the first opportunity of delivering whenever the os might be sufficiently dilatable.

11th.—During my absence, she suddenly died. I arrived in a few moments and delivered rapidly by version; cranial presentation. Child still-born. The operation could not be undertaken at the time of my previous visit, not two hours before, on account of the non-dilatability of the cervix.

No post-mortem could be obtained. There were no physical signs during life of disease of heart, lungs, or liver.

CASE LIV.—*Premature Labor spontaneously occurring on the day assigned for its induction.*

It once occurred to me on a former occasion in Bellevue to fix a day for the induction of premature labor in a rachitic primipara with diminished antero-posterior diameter of brim and great curvature of spine (lordosis, kyphosis, and scoliosis). Outlet well formed. The night before the day fixed for the operation she fortunately fell in labor and was delivered, without interference, of a living child, and did well.

CASE LV.—*Transverse Presentation.*—*Difficult Version.*—*Prolapse of Funis.*—*Death of Child and of Mother.*—*Fatty heart, liver, and kidneys.*—*Softened Spleen.*

M. W. —, single, aged 25, number of confinements not stated. In labor March 9th, 1857, for nine hours. Male child still born—9lb. 11oz. J. Smith Dodge, Jr., House Physician.

At 11 A.M., Dr. Dodge found this patient in labor with regular pains and in good condition, and detected the left hand presenting through the unbroken membrane. Os the size of a dollar, long diameter of uterus oblique, fundus to the right. Fœtal heart loudly audible over median line just below the umbilicus. At 4 P.M., as the cervix was not fully dilatable, I directed the injection of four or five quarts of warm water just within the os, when the cervix promptly relaxed and became fully dilatable. At 5 P.M. the hand only being within reach, I attempted version. On rupturing the membranes the cord instantly prolapsed to the vulva. I grasped the right foot with facility and brought it down to the vulva, by which time the cord had ceased to pulsate. All my efforts could not move the fetus further. Dr. Dodge, who assisted me ably, failed also. As the child was dead, I tried with a poor pair of craniotomy forceps to advance the leg while rolling over the child, but did not succeed. Fillet failed. Stopped then and sent for further aid, and Dr. Taylor arrived at a quarter of six. Hand, foot, and funis in the vagina, head to be felt above the brim. I then made another effort to get down the left foot, and aided by traction with a good pair of craniotomy forceps we succeeded in completing this difficult delivery. Placenta came away readily, uterus contracted well. Labor terminated at 7.40. Came promptly from under chloroform. Pulse 90. Condition good. Ergot and then morphia.

10th.—Comfortable, pulse 84. Much soreness and swelling. House physician did not succeed with catheter, but relieved the bladder with fomentations. 11th.—Pulse 120, tongue rather dry. No better success with catheter, doubtful about amount of water passed. Hands and feet cold, mind unclouded. Opium, camphor, and brandy. In the

afternoon the face became distorted, breathing difficult, and she died rather suddenly.

Autopsy.—Heart, liver, and kidneys, in advanced fatty degeneration, appearances confirmed by Dr. D.'s microscopic observation. Spleen almost pultaceous, and of claret color. Microscope shows fibro-plastic cells, free nuclei of splenic cells, but no pus. Uterus relaxed, not apparently inflamed. Bladder much injected, containing some opaque muco-purulent matter. Peritoneum injected arborescently, and in one place a small patch of recent lymph.

CASE LVI.—Breech Presentation.—Anencephalic Head.

Ann Coyle—second pregnancy—December, 1853, thirty hours in labor—child weighed nine and a half pounds—still-born. Bellevue Hospital.

I was sent for to this case in consequence of the protracted labor and non-advance of the presenting parts. The legs and arms were delivered with a good deal of difficulty, and I prepared the house staff to expect to see much greater trouble with the head, when it slipped into the world without any trouble on account of its deformity. House physicians, Drs. Frothingham and H. B. Sands.

REMARKABLE CASE OF ACQUIRED DEFORMITY;

WITH THE TREATMENT AND ITS RESULTS.

By JOHN B. BROWN, M.D.,

OF BOSTON, MASS.

MARCH 26th, 1860.—Mr. —, from Alleghany county, N. Y., this day, placed his daughter under my care, with deformed legs and lateral curvature of the spine, with convexity to the left. The spine is almost a semicircle. The thighs are at right angles with the pelvis, and the legs at acute angles with the thighs. She is thirteen years old; has a bright, sensible countenance, and a fine black eye. Her bodily health is good; has the use of her hands and arms; is fond of reading, and very industrious with her needle. There seems to be no paralysis in the legs, and she can move the thighs on the pelvis and the legs on the thighs, to a limited degree. She can flex them freely, but cannot extend either the thighs or legs beyond a right angle, and the leg not even to that degree. The

history of the case, furnished by the parents, is that, in February, 1855, she was bringing into the house an armful of wood, when she slipped upon the smooth floor, and fell with great force, in a sitting position. The weight of the wood of course greatly increased the severity of the blow, and as will afterwards be seen, she undoubtedly at this time fractured the coccyx. This fall occasioned much pain at the time, and produced constant vomiting for twenty-four hours. Soon afterwards her legs began to contract, and her head and body were drawn back and continued for forty-eight hours in a position simulating opisthotonos.

She had great pain in the head, hips, and back. Her mother describes the pain in the coccyx as excruciating, and says it went all over



FIG. 1. Represents the little patient, as she was supported to have her Ambrotype taken, being the nearest approach to standing erect of which she was capable, even with assistance.

It will be perceived, that the legs are permanently flexed to an acute angle, on the thighs; and the thighs to a right angle, on the pelvis; as before stated.

her. In a few weeks these symptoms were so far mitigated, that she was able to attend school. In July of

this year (1855), she had another attack of pains, etc., as before, and was confined about three weeks. She recovered partially from this, but the first of the succeeding February, one year from her fall, she had another similar, but still more severe attack. The suffering was very intense. "The bottom of the back-bone did ache so!" she would say. The distress was so great that her screams were heard all over the house, and the muscles drew up the limbs so that bystanders said "they could hear them crack."

The above history of the case was mostly obtained by letter from the mother of the little girl, previous to her coming under my care. I find the following particulars entered in my case-book:—The coccyx is bent out, and is standing at right angles with the sacrum. It was probably broken by the previously mentioned fall. The popliteal space is filled up with a dense, hard mass of cellular substance and contracted fascia; in which the veins, arteries, nerves, and tendons are so embedded, as to render their discrimination obscure and the division of the latter extremely complicated; and in fact, it was difficult to distinguish one part from the other.

April 24, 1860.—Administered ether and divided the following tendons, viz. semitendinosus, semimembranosus, biceps, and gracilis in both legs. The gracilis was divided two inches above the knee, and not near its origin in the groin, as I have usually done. Appropriate extending apparatus of different kinds have been constantly applied to the legs, and a modification of Tavernier's Lever Belt to the body—together with the use of the inclined plane daily. Under this treatment the limbs became about three-fourths straight, and the back much improved; still it was obvious that the legs had come to a stand-still, and could not be straightened any more by mechanical appliances alone; and that the same tendons would require redividing.

My little patient was consulted, and she readily acquiesced in the suggestion; saying, she had thought it would be necessary. Accordingly, August 10, 1860, she was etherized, and I redivided the semimembranosus, the semi-



FIG. 2. Represents her as she then walked, with her body obliquely horizontal; resting on her arms, used as legs, and on her legs, as they were in their permanently bent position—thus going "on all-fours."

tendinosus, the biceps, and the gracilis as before, in both legs, and put on similar appliances for straightening the limbs as before.

In addition, gymnastic exercises were so arranged for the legs, that they could go through a course of daily exercises, raising weights, etc., etc. By a steady perseverance in these, and a continuance in the other mechanical treatment, with the addition of a hand-swing, she has improved gradually, but steadily, not only

in her limbs, but her body. The second time she was etherized, the sphincters and the whole system were fully relaxed. Dr. J. Mason Warren, who assisted in the operation, incidentally examined the parts originally injured by the fall, and discovered that the coccyx was movable. Upon further examination, while the parts were in this extremely relaxed state, it was found that the coccyx had been broken off by the fall, as I had supposed on my first examination, and had so entered in my case-book, and was now floating about in the cellular substance, being only united to the sacrum by membranous attachment. The "cracking of the muscles," said to be distinctly heard by those in the room when the patient was in great pain, and "the muscles drew the limbs up," was possibly caused by the movement of the coccyx upon the sacrum. The

surface of the body more or less, on both sides, but more particularly on the left, from the axilla to the feet, and was



FIG. 3. Represents her as she *now* is, standing erect, without crutch or cane; and able to walk without any artificial aid.

is still, although in a much less degree, preternaturally sensitive. How far this can be explained by the separation of the coccyx from the sacrum, I am unable to decide. My little patient is not entirely cured, but extremely benefited, as may be seen, when the above cuts are compared with each other. She can walk without the aid of crutch or cane. When she is going a considerable distance, she takes a pair of light crutches in her hand, as a steamer takes sails, that she may use them as circumstances require.

Her spine has not, as yet, acquired its normal state; but it is improving daily; the bones are not diseased.

One of the legs is apparently shorter than the other, caused by the obliquity of the pelvis, which, as the spine becomes straight, is gradually lessening, and the legs recovering their equality in length. If, however, this is not fully acquired, an important point has been gained, in enabling her to stand and walk without assistance. She has been in Boston eleven months, and will soon return home to be under the judicious care of kind and affectionate parents, with instructions to continue her gymnastic exercises as heretofore.

Reports of Hospitals.

REPORT OF ST. VINCENT'S HOSPITAL.

FOR THE YEARS 1859-60.

[By WILLIAM O'MEAGHER, M.D., Resident Physician and Surgeon.]

THIS hospital is now in the eleventh year of its existence, and contains *one hundred and fifty beds*, with ample room for two hundred or more if required. A large and very commodious wing was added last summer, capable of accommodating upwards of eighty beds, which are now nearly occupied. Gold's admirable steam apparatus is used throughout, for the purpose of heating the wards, which is done very effectually and with considerable advantage in point of comfort and sanitary precautions. Several additional private rooms have also been fitted up for the reception of those who do not choose to remain in hotels or boarding-houses. These are provided with every comfort requisite for invalids, combining at the same time all the privacy and quiet of home.

Up to the end of December, 1860, 6,141 patients have been received and treated. Of these the great majority were medical cases, and the diseases generally of a chronic or fatal character, such as phthisis, malignant growths and deposits, permanent organic lesions, etc., admitted very frequently in the last stages of disease. Many patients also were received almost moribund. These facts will sufficiently account for the large number of deaths which the tables exhibit. The whole number of admissions for the year 1859 was 494, of which 239 were men, and 255

women. Of this number, 180 were discharged well; 178 relieved or improved; not relieved, 34; deaths 102. Medical patients, 370; surgical, 124. In 1860 the total number of admissions was 600, of which 227 were men, and 323 women. Surgical, 183; medical, 447.

SURGICAL OPERATIONS FOR 1859-60.

By PROFESSOR MOTT.—Circumcision for congenital phymosis.—For phosphor-necrosis of *upper* jaw and malar bone.—Excision of enlarged cervical glands.—Division, by deep transverse incisions, of the masseter muscles of both sides for chronic immobility of lower jaw, of thirteen years' standing, and caused by the extension of inflammation in scarlatina anginosa.—Two cases, both very much improved on going out, and subsequently reported as restored to their normal functions.—Lithotomy. The patient was broken down and exhausted by long suffering for twenty years, and the calculus, a large one, with several rough prominences, was firmly impacted under the arch of the pubes. Nothing but an eroded, ulcerated pouch remained of what was once the bladder, and, as might be expected from such a state of things, adequate reaction did not follow the operation; the patient gradually sank into a fatal collapse. Resection of ununited fracture of the humerus. Case improved on going out.—Ligature of right carotid for malignant disease of left antrum. Left carotid had been tied for the same on a former occasion. The tumor was sensibly diminished by both operations. Twenty-four hours after the second operation, a severe fit of convulsions occurred, with some delirium subsequently; but, with this exception, the patient progressed very well, and went out considerably improved, in about a month afterwards.—Perineal section for impermeable stricture.—Excision of malignant breast.

By PROFESSOR VAN BUREN.—Removal of an enlarged cervical gland. A similar operation had been performed by the Doctor some years before in the same location.—Radical cure of hydrocele by injection of iodine.—Ditto by excision of a considerable portion of the sac, making a counter opening in the most depending part of the scrotum. A strand of lint was then passed through both, in the manner of a seton, which produced the desired inflammation, and such an amount of suppuration as to warrant the most positive assurances of a thorough and final cure. The case was one of very long standing.

By DR. A. B. MOTT.—Removal of lower lip and a portion of the lower jaw, between the angles, for malignant disease.—Removal of malignant tumor of the breast.—Radical cure of hydrocele by injection of solution of sulphate of zinc. Infiltration and sloughing followed, relieved by free incisions and poultices, and in due time the case was entirely cured.—Amputation of thigh for compound fracture of knee joint.—Removal of portions of lower jaw for caries, produced by gunpowder blast. The sound parts were then united by silver wire; in due time, new material was deposited, and firm union took place.—Bullet removed from posterior part of shoulder; a second supposed to be impacted in the dorsal vertebra, producing partial paraplegia. Case still in hospital, and considerably improved, but not yet able to move about.—Radical cure of hydrocele by excision of a portion of sac.—Excision of a bleeding fungus of the scalp.—Division of contracted flexor tendons of the hand. Wrist was bent to a right angle. The deformity was completely overcome, but the power of using the fingers had not returned to any extent at the time the patient left the hospital. She promised to report herself occasionally.—Tenotomy for double varus; infant two months old.—Amputation of leg for malignant disease of the instep.—Excisions of veins for varicocele, etc., etc.

By T. C. FINNELL.—Ligature of femoral artery for hæmorrhage from the same, produced by a sloughing, syphilitic ulcer, which had existed for several months previously to admission. At this time he was so exhausted by the constant, profuse discharge, that his death was hourly expected. He recovered, however, to such an extent, by the

aid of stimulants and proper nourishment, that some hopes were entertained of his eventually getting well; but reaction had reached its height, and again the sloughing began, and the artery was soon exposed to the extent of two or three inches. During the following night, some hæmorrhage occurred from a flap opening in the vessel, which was arrested by pressure, and the next day the artery was tied, but he gradually sank and died three months after admission.—Vesico-vaginal fistula. This had been frequently operated on previously, and in consequence, the opening was considerably enlarged, being about the size of a quarter dollar. The operation, however, was entirely successful.—Dislocation of the head of the femur into the foramen thyroideum reduced by Reid's method. During the manipulation, a second dislocation of the dorsum ili occurred; this also was promptly reduced by slight adduction and extension.—Malignant tumor of lower jaw removed, together with a considerable portion of the jaw itself. The disease returned, of course, after the lapse of some months.—Thoracentesis for empyema. Patient succumbed under the immense discharge.—Carious portions of upper jaw removed.—Enlarged malignant glands removed from the axilla, etc., etc.

By Dr. J. S. THEBAUD.—Operation for strangulated hernia. This was only a forlorn hope, however, as gangrene had begun previously to admission, so the patient died.—Amputation of thigh for strumous disease of the knee-joint; two cases, of which one died from pyæmia.—Amputation of the leg for compound fracture of the ankle-joint. Two cases nearly similar, etc., etc.

INTERESTING CASES.

Extensive Scalp Wound.—This case furnished a striking instance of the pernicious practice of employing numerous sutures, numberless adhesive straps, compresses, bandages, and other appliances in scalp wounds. The patient, a respectable married woman, while attempting to close a heavy window shutter, lost her balance, and fell, head foremost, a distance of about ten feet on a boarded floor beneath. The scalp was split from the inner angle of the left eye to the posterior lateral part of the vertex. The wound was treated as above described, and on the third day after the accident she was admitted to the Hospital, with intense tumefaction of the scalp, face, and left side of the neck, with erysipelas of the left cheek and eyelids, accompanied by low fever and delirium. The dressings and a majority of the sutures were at once removed, and after the application of warm poultices for a day or two, the patient being kept up by fluid nourishment and stimulants, suppuration commenced, and when free openings were made, in the most depending points, allowing the free discharge of pus, the condition gradually improved, and in due time she was discharged convalescent. Subsequently, however, she returned complaining of dull pain in the head, especially beneath the seat of the injury, attended by irritability, nervousness, and a partial loss of memory, but a course of iodide of potassium soon restored her to her former health.

Fibrous Polypus Uteri.—This case occurred in a single woman of about thirty, having been first noticed a year or so previous to admission. A vaginal examination revealed the os uteri dilated to about the size of half a dollar, and the tumor broadly attached posteriorly to the cervix. A subsequent examination, the patient being etherised, revealed this attachment extending also to the fundus, for a considerable extent, and the tumor itself to be about the size of an ordinary adult head.

As the broad attachment of the tumor was unfavorable to an attempt at strangulation by ligature or the écraseur, and inasmuch as the tumor, in case of this operation being attempted, should be brought away piecemeal—a proceeding not at all liked by those who have tried it—it was resolved by Dr. A. B. Mott, in whose service the case occurred, to dilate the cervix by means of the sponge tents, and then to attempt strangulation and expulsion when the tumor had

been rendered of a size sufficiently small to make the transit. The patient, however, got tired of this process, and left unrelieved. She is still under treatment, medically, and when last seen was enjoying good health, the tumor being somewhat diminished.

Cancer of lung, liver, etc.—A case, diagnosed as Phthisis, with various analogous symptoms, was found, on examination of the body after death, to be cancerous deposits in the right lung, where the physical examination before revealed circumscribed dulness and diminished respiration. Other deposits were found in the liver and lymphatic system.

Abscess of Cerebrum.—The subject of this case, which exhibited the most marked absence of positive symptoms, was admitted with some slight derangement of health, apparently exhibiting nothing very remarkable except a vibratory motion of the left eye and some slight headache. Under a tonic supporting treatment she was enabled to go out after a brief stay of a few weeks. A short time afterwards she returned with the same symptoms and was treated as before, but the same night she fell into a profound coma, and died towards morning. A post-mortem examination revealed a large abscess of the right hemisphere of the cerebrum, filled with pus and rapidly extending.

Enchondroma of the Lung.—A case of supposed empyema with enlargement of the affected side and bulging of the intercostal spaces, which excited a good deal of interest and speculation, not only in the Hospital but afterwards before the Pathological Society and elsewhere. After a consultation, thoracentesis was performed in two places, anteriorly in the usual place, and posteriorly lower down, but no fluid issued from the canula, though a long probe was introduced for the purpose of making an opening in the false membrane supposed to be obstructing the flow, with the same result. The patient eventually died, and the necropsy revealed an enormous enchondroma, ossified in various places, occupying the whole right side of the thorax, bulging out the intercostal spaces and pressing down the liver, which was deeply indented to receive a process almost as large as a goose egg. Two other isolated masses, each about the size of an ordinary fist, were found in the substance of the left lung. As for the right lung, it was almost obliterated, with the exception of a small portion posteriorly, which had not yet undergone the pathological change. The diaphragm on the same side appeared to have been changed in character and perforated by the superincumbent mass above, as the deposit in some parts was so firmly imbedded in the substance of the liver that considerable force was required to separate them. The other organs of the body were as healthy as might be expected under the circumstances.

Supposed Aneurism.—A case was diagnosed as aneurism, but on a post-mortem examination, it proved to be an enlarged gland pressing on the trachea at the upper portion of the sternum. Both kidneys were found encysted.

Cerebro-spinal Meningitis.—The patient, a young man, had been ailing for several weeks from supposed typhoid fever, the prominent symptoms being prostration, delirium, and involuntary evacuations from the bowels and bladder. He was also said to be dissipated in his habits for a long period. On admission, however, his delirium was set down as almost hopeless fatuity, and paraplegia, arising from cerebro-spinal meningitis and caused by dissipation and other vicious habits. He continued in this condition for upwards of a month without the slightest sign of improvement, an object of disgust and loathing to the nurse and the other patients; during which time every available remedy was exhausted, until the service of Dr. O'Rorke, who directed him a mixture of equal parts of tr. of iron and cantharides, the nutritious regimen to be continued. In a short time a decided change was visible, and, at the end of about three months from the time of admission, he went out as well as ever he had been, a model of good health and quick intellect.

American Medical Times.

SATURDAY, MARCH 23, 1861.

CONSANGUINEOUS MARRIAGES.

A COMMITTEE of the New York Sanitary Association has for some time been engaged in an investigation of the Physical and Moral Influence of the Intermarriage of Blood Relations; and judging from the character of their report, read at the last meeting of the Association, it may be hoped that the public mind will soon be aroused to the grave considerations connected with this vitally important subject. PROF. MORRIS, the Chairman of that Committee, has long enjoyed peculiar opportunities for the practical study of certain physiological questions connected with this subject, as illustrated in the Deaf Mute Institution at Fanwood, where it is found that a very large proportion of the applicants are the offspring of blood relations. His personal investigations are entirely corroborative of the deductions and statistics of DR. BEMISS, of Louisville, as contained in that gentleman's report to the American Medical Association in 1858.

PROF. MORRIS states that there were in the institution at Fanwood, at the close of the last year, 303 pupils, and that 44, or *fourteen and a half per cent.* of these, were the offspring of consanguineous marriages. The latter class of children were from thirty-seven families, in which there had been one hundred and sixty-five births. A large proportion of the whole number died young, and many besides the deaf mutes were ascertained to be defective. It is also stated that seventy-five deaf-mute pupils had been received at Fanwood from thirty-six families.

Now it appears from DR. BEMISS's statistics that the proportion of deaf-mutes among the offspring of consanguineous marriages is not half as large as that of the idiotic in such families;—a calamity more deplorable than deaf-dumbness. In addition to this we learn from the same statistics, that the number of cases of congenital blindness in the same families nearly equalled the number of mutes, while scrofulous and other deformities make up an unsightly aggregate of congenitally defective individuals, amounting to nearly *twenty-nine per cent.* of all the children in such families. The following summary of these statistics as presented in PROF. MORRIS's report, conveys a kind of practical instruction which every family physician should feel it his duty to enforce by professional counsel.

CONSANGUINEOUS MARRIAGES, AND THEIR FRUIT.

CLASS OF RELATIONSHIP.	No. of Families.	No. of Children.	Perfect.	Defective.
1 First Consins.	630	2,911	955	1,956
2 Second Consins.	120	626	360	266
3 Third Consins.	13	71	42	29
4 Double Consins.	27	154	21	133
5 Cousins, the Offspring of Cousins.	61	187	64	123
6 Uncle and Aunt, Nephew and Niece.	12	53	10	43
7 Incestuous.	10 cases.	31	1	30
Total.	863+10	4,013	1,458	2,580

We need not comment upon such statistics, though these figures convey but an imperfect idea of the inevitable physical evils that result from the marriage of near blood relations. Careful observation and inquiry will not fail to convince any physician that no small proportion of the erratic and perverted temperaments both of the body and the mind which we so often meet with, are associated with the intermarriage of kindred. The Asylum for Inebriates will eventually furnish us with statistics that may more effectually warn against intermarriage than do the above statistics of deaf-dumbness and other defects of the physical organism.

Physicians and philanthropists of every class will do good service for human welfare by forwarding to PROF. O. W. MORRIS, or the Secretary of the N. Y. Sanitary Association, any facts that may come to their knowledge respecting the defective offspring of consanguineous marriages. Instances like the following are continually brought to notice in the public prints :

"There is in this city, says the *Schenectady Star*, a very estimable married couple, who have had eleven children, six of whom were born blind; the youngest is blind, and only a few weeks old. When of sufficient age, they are sent to the Asylum for the Blind, in New York. They are said to be possessed of fine talents. We understand that their parents are cousins. There is no defect in the eyes of either parent."

Let medical inquirers ascertain all the facts relating to such cases, and for the purposes of scientific and public utility transmit accurate records of the same to the Sanitary Association's Committee in this city.

VILLAGE HOSPITALS.

SOME time last autumn we had occasion to notice in these columns a novel proposition that was then pending in the Richmond County Medical Society, for extending gratuitous medical services to the poor and the friendless of the villages of that county. We heartily approved the suggestion, and showed the feasibility, economy, and desirableness of plans for medical relief in villages and rural districts. It appears that the Medical Society, just named, has actually carried into successful operation a plan for this purpose, and its distinguished President informs us that large numbers of the needy sick in one of the villages of that county, are provided for in accordance with the following—

NOTICE.—RICHMOND COUNTY MEDICAL SOCIETY.—One or more members of this Society will attend at the Society's Rooms, corner of Bay street and Union Place, every Saturday, between the hours of one and two o'clock P.M., for the purpose of giving medical advice and medicine to those who may desire it.

By order of the Society.

This is a good beginning and a commendable example, and we trust the same beneficent plan will be extended to other villages than Stapleton, and that the village Dispensary will be open oftener than once a week. However, in the absence of epidemics, the greater part of the indigent sick could be relieved by the plan here adopted. Vaccination and hygienic advice should also be freely offered, as well as medical and surgical aid each week.

The practical working of this pioneer system of medical charity cannot fail of success in the hands of its noble projectors, Dr. WILLIAM C. ANDERSON and his associates; and we believe they will soon find it expedient to establish one or two Village Hospitals in that county.

The Village Hospital will ere long become an institution of vital importance in all our manufacturing and populous villages; and the individual, social, and economic benefits of the system cannot fail to make it a permanent and cheerfully sustained institution of Christian charity in every populous community. In a future number, we will present our views somewhat in detail upon this subject; but in noticing the good work undertaken by the Staten Island Medical Society, we cannot forbear to refer to the peculiar necessity which demands the institution of a village or cottage hospital in districts where there are gathered large numbers of strangers, or friendless inhabitants, be they mechanics, navvies, transient sojourners, or pupils in seminaries. Indeed, it was the peculiar demand for such a home for sick students in a large rural seminary of learning that first called our attention to this subject. And who that has observed the condition and circumstances of the homeless sick and wounded in our manufacturing villages, has not thought of the desirableness of a suitable cottage, good nursing, and systematic medical provision for such unfortunate persons? In relation to the treatment of surgical accidents among workmen and strangers, as well as in the management of febrile and acute diseases, that particularly require tranquil quietude, pure air, and skilled nursing, we have the strongest arguments in favor of the institution of such means for suitably providing for the patient's necessities and the public welfare.

The Crawley Village Hospital in England affords a fair illustration of the utility and economy of such an institution. During the past (its first) year, twenty-two cases of accident and disease were successfully treated therein, at an aggregate expenditure of less than one hundred and twenty-five dollars, being less than six dollars for each patient. That institution consists of a cottage that is given rent free, and which is occupied and kept in constant order and readiness by a resident nurse and her servant. An officer in one of the popular seminaries in a county town recently remarked to us, that such a cottage and its proper appointments would save valuable lives, and many hundreds of dollars for the pupils and patrons of that seminary. How much more would the same utility and economy of the Village Hospital be seen in a manufacturing town!

THE WEEK.

THE Fifty-fourth Annual Commencement of the College of Physicians and Surgeons, now constituting the medical department of Columbia College, took place on Thursday evening, March 14, at Irving Hall. Dr. Edward Delafield, President, occupied the chair; to his right were seated Dr. McVicar, as representative of the Collegiate Department, and the Professors of the Medical Department; to his left sat the Chaplain of Columbia College, the Rev. Dr. Weston, together with a number of distinguished gentlemen. After prayer by the Chaplain, President Delafield administered the Hippocratic oath, and then delivered diplomas, assisted by Professor Dalton, Secretary of the Faculty, to sixty-two graduates. President Delafield's address, which followed, was an elaborate history of the life of Dr. Samuel Bard, first President of the College; the address embracing the early history of the College of Physicians and Surgeons. Henry M. Lyman, A.B., of New York, delivered the valedictory address.

Dr. Delafield announced that the usual prizes of the Faculty, the first being a sum of \$50, and the second \$25, had been awarded to Drs. Mans Rosa Vedder, of Schenectady, N. Y., and Charles Carter, of New York City, respectively, both in acknowledgment of well-written essays on medical subjects; and honorable mention was likewise made of Drs. Alfred North, of Connecticut, Henry M. Lyman, of New York, and William Henry Carman, of Pennsylvania, also for dissertations on medical subjects. Dr. Harsen's prize of \$100, and a gold medal worth \$50, was awarded to John Shradley, jr., and of \$50, together with a silver medal, to John Elderkin, of this city. Dr. Thomas Blatchford, of Troy, delivered an entertaining address to the Alumni. The past term has been the most prosperous since the commencement of the school. The number of matriculants was 264.

THE Health Officer of Brooklyn, in his late Annual Report, lit upon the following happy expedient for popularizing vaccination in that city:—

"In order to relieve the minds of parents from any anxiety in relation to the quality of the matter to be used upon such occasions, and also to meet the wants of the medical profession in this city, in this particular, I would recommend that a cow be set apart, and kept at the grounds of the Alms-house, or elsewhere, for this especial purpose, from which fresh matter could always be obtained."

In proof of the practicability of this plan, he states, that "the authorities of Boston have for several years in this manner, and with effect, supplied the Profession in that vicinity." But the *Boston Journal* is disposed to treat this ingenious device to *cow* the people of Brooklyn into vaccination, with ridicule; while a correspondent of that journal propounds the following pertinent queries, in regard to the Boston Cow:—

"My object in sending this, is to inquire about *that cow* which is kept in Boston. I would like to know *where* it is kept, so that I may visit it, when I am in your city again. I think it would also be interesting to the Profession in general to know something of the said animal. I would propound a few questions, which I beg you will answer, or get the keeper of the cow to answer. I think it would be interesting to know the age of the cow; how many years she has been kept for that purpose; how often the matter is taken from her, and what is the average quantity obtained each month or year; also how the drain of matter affects the secretion of milk; whether she continues to have offspring, and if so, how are the offspring affected by this state of the mother—whether they are susceptible to the disease, and at what age; whether this matter can be obtained in perfection from a *calf*, and if so, whether Boston could supply them to other cities?"

THE second *reunion* of the Fellows of the Academy of Medicine took place on Thursday evening, the 14th inst., at the residence of the President, Dr. Anderson. One feature of the evening entertainment deserves special mention, as it added much to the interest of the occasion. We refer to the exhibition of the laryngoscope, and demonstrations of its uses by Dr. CHURCH. We hope that these interesting social gatherings will be diversified with similar illustrations of recent discoveries in science.

THE Register of Records of this city, a subordinate of the City Inspector, has given notice to the "practising physicians of New York," through the newspapers, that "in addition to the regular duties of his office," he purposes

giving "for the benefit of the medical profession and others interested in Sanitary Science, the age, sex, and nativity of persons dying in this city, in 1861, from the most prevalent diseases," and also the number and street where the deaths occur. This, he states, will be "a laborious undertaking," and "therefore trusts that my medical brethren will give me their assistance" by making correct returns. We find, also, the following passage under the name of this gentleman, in the Report of the City Inspector for 1860, under the head of "Medical Societies."

"A well-regulated County Medical Society in active operation in this city, could and would, no doubt, remedy many of the evils which now exist here in regard to the practice of medicine. There is not at present, I believe, such a body in active existence, or at least, *not one that takes much part in considering the medical questions of the day.* There is, however, a Society called the '*New York Medico-Chirurgical College,*' which bids fair to be an ornament to the medical profession of New York. It is composed of the middle-aged and younger members of the profession. Within it may be found a large portion of the surgical and medical talent of the city. This Society does not meddle with politics, nor seek public place for its members, under the garb of an earnest desire for the welfare of our citizens, but really has for its object and aim the advancement of physical and medical science, and the good of mankind."

The members of the respectable Society herein named will doubtless feel as much elated with this endorsement, as the Fellows of the Academy of Medicine, and a dozen other Societies, will feel aggrieved at being thus slurred at by one who already has a "public place," and who could indite so learned and lucid a sentiment as the following, which we find on the same page:—"All or any medicine that may be given to a patient, if it should not counteract, will coincide with the disease; that is, if it does not cure, it will either kill the patient, or greatly aggravate the symptoms of the disease;" and this, from the Report for 1859:—"Another great cause of death among infants is, the indiscretion of many mothers in exposing them to the bright sunlight of the city, increased in intensity by the smooth and metallic surfaces upon the streets and fronts of the houses." This author certainly needs the "assistance" he "trusts" from his medical brethren.

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The third annual meeting of the Alumni Association of the College of Physicians and Surgeons was held at the residence of Professor Smith on Friday evening, the 15th inst. There was a large attendance, and it was the occasion of a very pleasant reunion. The following officers were elected for the ensuing year:—President, Dr. Thomas W. Blatchford, of Troy; Vice-President, Dr. R. S. Kissam; Secretary, Dr. J. H. Vedder; Treasurer, Dr. H. B. Sands; Orator, Dr. David T. Brown.

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The new President of the New York County Medical Society, DR. H. D. BULKLEY, in his Inaugural Address, gave utterance to the following sentiments respecting the question of legal protection to the profession and the people against quackery. Not the profession, but the people, require the protection of law.

"But is it so? Do we require the strong arm of the law to protect us? Which is the greater sufferer by this removal of all legal restraints from the practice of medicine and surgery, the profession or the public? Does not the public stand more in need of this protection than the profession? and are not many of the evils inflicted upon the

public the indirect result of the indiscriminate use of dangerous weapons by those who have not the skill to use them? Where do these very public bodies, which would thus break down all distinctions between the educated and the ignorant in our profession, where do they look in times of danger for counsel, and upon whom do they call for advice and aid in their public institutions for the relief of the sick? Not to the ignorant pretender; not to those who use roots and herbs without fee or reward, whose claims for confidence they have sanctioned by their short-sighted legislation, but upon those whom they know to be qualified, both by education and experience, for the important trusts which they wish to commit to them. Let us then rather pity than blame this delusion, which leads those who are constituted our legislators to act thus blindly, and rob their constituents of the only protection they have against the ignorance and rapacity of pretenders; and let us, by increasing the facilities for education, as well as by a more diligent use of those with which we are already favored, prove ourselves above the necessity of legal protection; and by our devotion to our cherished pursuits, and our deep sense of the obligations imposed upon us by a higher than human law, show our fellow-citizens the true bearing of the question, and by this best of all influences, lead them to honor and protect the profession, as the best and surest way of honoring themselves and protecting the lives and pockets of those for whom they are called to legislate."

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AN allusion was made last week by our Philadelphia Correspondent to the resignation of Prof. MEIGS, in the Jefferson Medical College, and the names of several candidates for the vacant chair were mentioned. We have since learned that Prof. C. B. COVENTRY, of Utica, N. Y., has been spoken of in the same connexion. Prof. COVENTRY has been a successful teacher in the department of Obstetrics for at least a quarter of a century, first in the old Fairfield Medical School, and subsequently in the Geneva and Buffalo Medical Colleges. No person can bring to this chair more thorough preparation, or more correct appreciation of the duties and obligations which the office imposes.

BELLEVUE HOSPITAL.

On Thursday, the 14th inst., at half past one o'clock, the Wood and Mott prizes were awarded in the theatre of Bellevue Hospital, by Prof. VALENTINE MOTT, Chairman of the awarding committee. This Committee is composed of the Professors of Anatomy, Physiology, and Surgery, in Medical Schools of New York and Brooklyn.

The minutes of the last meeting of the Committee were read by Dr. ENOS, as follows:

The Committee on the Wood and Mott prizes met at Bellevue Hospital, March 6th, 1861.

Dr. VALENTINE MOTT was appointed Chairman, and Dr. ENOS, Secretary. The Committee, after examining the preparations, came to the following decision:—

First. That preparation marked "A," was entitled to the first Wood prize, of Fifty Dollars. This was prepared by JAMES B. CUTTER, of the Long Island College Hospital, Brooklyn.

Second. The second Wood prize, of Twenty-five Dollars, was awarded to the preparation marked "B," prepared by JOHN SHRADY, JR., of the College of Physicians and Surgeons.

The Mott prize was not awarded; but a reward of merit was given to EUGENE S. ALCOIT, of the University Medical College, New York, for the preparation presented.

In arising to award the prizes, Dr. MOTT said that he had a most melancholy duty to perform. Since they met under similar circumstances last year, he had been called to mourn the loss of an intimate and beloved friend, and the medical profession one of its brightest ornaments. Dr.

JOHN W. FRANCIS is no more; but this was not the time for eulogy; he trusted that this task would be performed at some future day by one who would be able to do his life that justice which it so richly deserves, and thus pay a tribute which the profession of New York owe to the memory of departed worth. It was now fifty years since DR. FRANCIS was his pupil; being one of the first who attended the commencement of his labors as a Professor of Medicine in the old Columbia College. But that Faculty, he added, have now all passed from earth, leaving him the sole survivor. It was not strange, therefore, that the present hour should recall pleasing, though sad, reminiscences, linked as they were with some of the most memorable events of his life.

DR. MOTT then proceeded to award the prizes.

Together with the Wood prize, was a certificate beautifully engraved by Mr. Stanton, and signed by the members of the awarding Committee.

DR. MOTT stated, that the third prize, offered by DR. A. B. MOTT, consisting of an operating case, valued at \$100, had not been awarded by the committee to the preparation which had been presented. Nevertheless, this preparation, offered by MR. EUGENE S. ALCOTT, was one of remarkable merit for a first course student, and it afforded him pleasure upon this occasion, as upon all others, to give a young professional beginner that credit which he may deserve. Though MR. ALCOTT had lost the full prize, he yet deserved commendation, and it afforded him pleasure to state that this young gentleman had received his first prize in the University Medical College (consisting of a fifty-dollar gold medal), at the close of the last session. In token of DR. A. B. MOTT's regard, he begged to present from him a small but neat case of post-mortem instruments.

DR. WOOD said that he felt gratified to know that his efforts to excite an interest in anatomical pursuits among the students of medicine in the Colleges, had met with the approbation of the profession, and of the distinguished gentlemen by whom he was surrounded. He had come there to-day to listen to the Nestor of American Surgery, and this reminded him that upon a similar occasion last year, it had been his privilege to hear the eloquent words which fell from the lips of the Nestor of American physicians; but that voice will be heard no more in this place. He was happy to state, however, that a biography of DR. FRANCIS was in course of preparation by his old friend and preceptor DR. MOTT, whose relations with the deceased were of such a close and intimate character as to render him the most competent of all other men to perform this duty. In offering prizes to medical students he had only followed the example of his illustrious teacher, DR. MOTT, who was the first to institute the practice of offering prizes as a stimulant to the younger members of the profession in the prosecution of their anatomical and surgical studies. Nor was this the only debt of gratitude which the profession owed to DR. MOTT, for it should always be remembered that he was the first American Surgeon who delivered a regular course of didactic lectures upon topographical or surgical anatomy; thus instituting a branch of study which lies at the very foundation of all successful surgery. He had first conceived the idea of offering these prizes with the view of establishing a museum in connexion with the Hospital, because he knew that he could have no higher or more worthy example than that set by DR. MOTT; he had always taken him for his guide since he had commenced his career, and he could say that he had never been misled. He thanked the committee for their kind response to his invitation to make these awards, and the students for their praiseworthy efforts to gain the prizes; he should offer the same prizes next year, and he hoped that in the future there would be more general competition; he regretted that there were no offers for DR. ELLIOTT's prize, for he was sure that if the students knew what high appreciation the profession placed upon these anatomical preparations, their number would be vastly augmented.

DR. ALEX. B. MOTT stated that he would offer the same

prize next year, when he hoped that the committee would find some preparation which they might deem worthy of it.

DR. LEWIS A. SAYRE said that he honored these gentlemen whose liberality, and zeal in the medical profession, had induced them to offer these valuable prizes for the competition of medical students; and he would advise every student to compete for them, as the very effort was a source of improvement to them, even though success did not crown their efforts. He paid an eloquent tribute to DR. FRANCIS, who had passed away from the companionship of men; but not so his memory; let us all remember the excellences which distinguished him; let us all emulate his industry, his perseverance, his studious habits, his indomitable energy, and let each in his career strive to add something of the excellences which adorned his life.

Brief remarks were also made by Professors HAMILTON, ENOS, and RAPHAEL, after which the meeting adjourned.

Progress of Medical Science.

Report on the Medical Uses of Veratrum Viride. By DR. A. HARD, of Aurora.—The author having addressed circulars to the members of the Illinois Medical Society, calling for information in regard to the effects, modus operandi, and value of this article as a therapeutic agent, reports as the result of his inquiries and experience, that it is the most reliable arterial sedative, and most certain in its effects, of any article with which he is acquainted; particularly applicable in inflammatory diseases, as pneumonia, rheumatic dysentery, and peritonitis. Some of his respondents are quite sanguine in its praise, deeming it in almost all instances a valuable substitute for the lancet; and all agree that its effects are first to reduce the pulse below the normal standard, promote diaphoresis, and if continued in sufficient doses, emesis and severe prostration, which, however, are readily controlled by alcoholic stimulants or some preparation of opium. Some administer it in small doses every hour, while others commence with a full dose, and when its effects are sufficiently manifest, continue it in smaller doses according to circumstances.—*Chicago Med. Exam.*

Report of the Committee on Practical Medicine. By DR. C. GOODBRAKE, of Clinton.—Like the foregoing article, this is a report to the State Medical Society, made from correspondence with a large number of practitioners in different parts of the state. It includes several sub-reports of epidemics of scarlatina, dysentery, bilious remittent and typhoid fevers, pneumonia, and diphtheria. Most of the cases of dysentery required mercurials at the start, combined with opium, and continued until bilious discharges appeared, when opium was continued in doses of from one to four grains, until the desired effect is produced. A mixture composed of equal parts of tinct. opii and spts. camph. is highly spoken of for relieving tormina and tenesmus. DR. HARRIS, of Ottawa, writes that he meets with but few cases of typhoid fever, while some of his neighbors aver that they see it every year, and sometimes twice a year in the same patient, without the "rose spots, and almost invariably recovering in from five to fifteen days!" The following mixture is mentioned as appropriate throughout the continuance of whooping-cough. R. Pulv. coccinellæ Oss., carb. potassæ ʒj., sacchar. albæ, ʒii., fluid ext. asclep. tuber. ʒi., aquæ destil. ʒiv. M. Give a teaspoonful to a child every three or four hours.—*Ibid.*

Selected Cases, with Medical and Therapeutical Observations. By DR. F. PEYRE PORCHER, Physician to the Marine Hospital, Charleston, S. C.—Case of Horny Tumor removed from the head of a negro woman, leaving a small portion of the cartilaginous base, upon which the Horn reappeared, when a second operation was performed, removing it entire, so as to completely expose that portion of the cranium on which the tumor rested; the wound

readily healed, and there was no return of the disease.

—Case of Imperforate Lacrymal Duct treated, Dilatation. A small silver probe, having a bit of silk thread passed through the eye, and lashed to a small string of catgut, was after repeated efforts passed through into the nostril, and the catgut drawn through to the nose and worn for several days, the absorption of fluid causing it to enlarge and dilate the passage. By introducing a larger piece of catgut, and its consequent swelling by absorption, complete dilatation of the passage to the nose was at length effected.—Case of scrofulous degeneration of the bones, coexisting with the escape of oxalate of lime from the kidneys, leaving the soft tissues unaffected. Accumulation of fat in the system, dependent upon atrophy of the lungs, and consequently no combustion of fat in the system. Abortive treatment of Gonorrhœa by recumbent position, nauseating doses of tartar emetic, mucilaginous drinks, &c., cure in thirty-six hours. Employment of chloroform in protracted labor for the purpose of producing sleep during the intervals of the pains. Hoffman's Anodyne, a substitute for brandy and alcohol in the treatment of delirium tremens, used with satisfactory results in eight cases, one drachm diluted with water being repeatedly administered until nervous tremor was allayed and sleep induced. Epidemic of varioloid appearing in and confined to a single building in the city of Charleston. Use of large doses of opium for the relief of centric convulsions in children, not dependent on worms, errors of diet, &c. A case of tetanus successfully treated with cannabis indica, calomel, &c. Use of cold water in restraining inflammation and preventing heat, redness, and pain in fractures.—*Charleston Journal*.

Umbilical Hæmorrhage. By Dr. A. N. TALLEY, of Columbia, S. C.—Three cases are reported, two of which proved fatal, notwithstanding the free use of nitrate of silver, alum, powdered matico, tincture of iron, and creasote, with compression; the third was treated by applying lint dipped in Squibb's liquor of the persulphate of iron, with the effect of at once permanently arresting the hæmorrhage.—*Ibid*.

Successful Treatment of Caries of the Bone. By J. P. DROMGOOLE, of Chulahoma, Miss.—Two cases of caries of the vomer treated internally with comp. syr. sarsap. and stillingia, with iod. potass., occasionally alternating with iod. of iron, or citrate of iron and quinine, locally. R. Acet. plumbi, sul. zinci aa 3i.; pul. hydrast. canad. ʒij.; pul. opii ʒss.; sacch. alb. ʒi.; aq. rosar. distil. Oi. M. Let stand seven days with frequent agitation, and use as an injection, with a glass ear-syringe, to the affected parts twice per diem for three weeks, when it was made twice as strong and applied with a camel's hair pencil. By persevering with this treatment both finally recovered.—*Ibid*.

Clinical Report of Cases observed at the New Orleans Charity Hospital during the Session of 1859-60. By Dr. AUSTIN FLINT.—Case 1. General Paralysis, illustrating the importance of the patient's exerting himself to move the paralysed limbs as much as possible, the practice of which, together with ordinary tonic remedies, was attended with marked improvement. Case 2. Laryngitis, in which the patient's life was saved by the timely performance of tracheotomy. The rule followed was "to operate as soon as the permanent obstruction was sufficient to occasion lividity of the prolabia." We should attach more importance to this symptom than to the manifestations of suffering presented from spasms of the laryngeal muscles, which will generally occur in paroxysms. The tracheal tubes had been worn without much inconvenience for nearly five months when the patient was last heard from. Cases 3 and 4.—Edema Glottidis, in both of which tracheotomy was performed and both terminated fatally, due to the operation not being performed sufficiently early. An important diagnostic mark in this disease, is obstruction seated at the larynx affecting the inspiration, and not the expiration. Case 5. Dilatation of the aorta—insufficiency of the aortic valves, and sudden death. Case 6. Aortic pulsation simulating aneurism, reported as illustrating the fact that strong

pulsation of the abdominal aorta within a circumscribed space, accompanied by a murmur, may exist without being diagnostic of aneurism, when no tumor is discoverable. The last case reported is one of typhoid fever, with a relapse and second career of the disease, with the eruption repeated.

—*New Orleans Hospital Gazette*.

Wound inflicted by a Sting-Ray. By Dr. E. R. MORDECAI, Mobile.—The barb of the fish entered the lower third of the leg between the bones, and in forty-eight hours the patient had a dry brownish tongue, labored respiration, cold clammy skin, and other concomitants of depressed vital power, but at length rallied under powerful stimulants, generous diet, &c. On the tenth day, mortification set in, and amputation was performed while the patient was under the influence of chloroform, little blood was lost, but before the stump was dressed the patient died.—*Ibid*.

Reports of Societies.

N. Y. PATHOLOGICAL SOCIETY.

STATED MEETING, January 28d, 1861.

DR. A. C. POST, PRESIDENT.

EXSECTION OF CAPUT FEMORIS.

DR. BRUCK presented the upper extremity of a femur, including the two trochanters, cervix, and head, removed from a patient at St. Luke's Hospital. She was about twenty years of age, and gave the following account of her antecedents:—In early childhood she had met with injury of the hip, followed by lameness which lasted for a certain time, and from which she recovered so completely that up to the time of the more recent injury, occasioning the disease for which the operation was performed, she had as good use of the limb as the other. She generally enjoyed good health. Two years and a half previous to the operation, she had met with an injury of the hip followed by inflammation; at the expiration of seven months, suppuration took place, and the first opening formed, discharging pus. She had been under observation in the St. Luke's Hospital for about eighteen months, and during that time a succession of abscesses formed about the hip-joint, accompanied by the usual constitutional disturbances; openings would form, the contents of the abscesses would be discharged, and then the health would improve. She showed a good deal of constitutional stamina in rallying from these attacks. Several openings formed, and some continued open; at the time of the operation there were marked cicatrices of others that had closed. She had no other disease that was appreciable. Her limb was adducted so as partly to cross its fellow, and the whole limb was rotated inwards and firmly flexed. She was exceedingly anxious to be relieved, and very promptly acceded to the proposal of an operation, for on consultation with the other surgeons such a measure was deemed expedient. The operation was performed as follows:—The patient was placed partly over on the opposite side, so as to make the parts easy of access. After being etherized an incision was commenced about two or three inches above the trochanter, and carried over the trochanter in the direction of the longitudinal axis of the limb, to an extent of about seven or eight inches. The bone was exposed and denuded on either side so as to establish a tract completely around the bone, and in contact with it below the lesser trochanter. The chain saw was passed along this tract, and a section was made without any considerable difficulty. The greatest difficulty occurred in disengaging the head of the bone from the acetabulum. By this division it was found that the head of the bone was movable, adherent, and imbedded in the acetabulum so as not to admit of the slightest motion. The further steps consisted in working down in contact with the bone to the rim of the acetabulum. After this had been effected, and when the bone was

denuded almost and throughout its whole circumference, force was used to stir the bone, but it was still immovable. Motion was, however, at length accomplished by a forceps which straddled the cervix, and by a rotary motion broke up the adhesions. There was no considerable hemorrhage following the operation. The incision was made to communicate with one of the old sinuses, which thus afforded a drain for the matter. The wound was closed for about two-thirds of its extent by wire sutures, and the patient was then placed in bed upon her back, or nearly so, and subjected to a moderate degree of extension by means of a five pound weight and pulley. The design was to steady the parts, counteract any disposition to spasmodic action in the muscles, and being the limb in a line with the axis of the body. The progress of the case has been hopeful and encouraging. The disease here appeared to be confined mainly to the cervix and head. The cervix was very much shortened, and was almost obliterated on the anterior aspect; behind there was a scanty finger's breadth. The head itself and articular surface were not only denuded of cartilage, but of bony incrustation, and flattened into several facets. The trochanter presented scarcely any change in its aspect. The brim of the acetabulum was found roughened throughout its whole circumference, and was pared away with the forceps.

Dr. Post remarked that he had performed division some years since of the upper part of the femur, in which there was exceedingly firm fibrous ankylosis.

CRIMINAL ABORTION; PERFORATION OF UTERINE WALLS WITH A KNITTING NEEDLE; DEATH.

Dr. FINNELL presented the uterus of a girl nineteen years of age, who being unmarried, and finding herself three months pregnant, determined to produce abortion. For this purpose she resorted to various nostrums, but without producing the desired effect. She then procured a knitting needle, carried it far back into the vagina, and thrust it in different directions with all her force. There was a great deal of pain in consequence, and also a slight discharge of blood. The day following she was seized with severe abdominal pains, which continued to increase, and soon fever and all the symptoms of inflammation of the uterus showed themselves. Continuing in this condition for ten days, she sent for a physician, who found on his arrival that labor had commenced. After the delivery the patient began to sink rapidly, and soon after died in a muttering delirium.

Autopsy.—There was no marked decomposition about the body. The abdominal cavity was filled with gas, and at a point behind the uterus the intestines were found to be agglutinated; at this situation about two pints of purulent fluid were discharged. The whole of the posterior margin could be seen in a state of gangrene, while superior to it was visible the opening made by the knitting needle, and capable of admitting the ends of two fingers.

POISONING BY ARSENIC.

Dr. FINNELL also exhibited an arsenical stomach removed from a person who was supposed to have been murdered, he having been found in his room with his throat cut. On post-mortem examination, however, it was shown that arsenic existed in the stomach, which fact led to the reasonable inference that failing to secure death as rapidly as he had expected to do by taking the poison, the deceased determined to hasten matters by applying the razor to his throat.

EFFECTS OF NEGLECTED PARONYCHIA.

Dr. THOMPSON presented a specimen of ankylosis of the middle finger of right hand. The member was amputated a few days before. The lady to whom it had belonged suffered some fifteen months ago from paronychia of the index finger. She refused to have it lanced, and the inflammation extended to the other white tissues of the hand, until all the fingers became contracted, and with the exception of the middle finger, partially ankylosed. After the removal

of the middle finger the others were placed upon a splint, in the hope that the existing rigidity would in time be overcome.

SUSPECTED CANCER OF THE PYLORUS.

Dr. H. N. FISHER presented a specimen of a stomach and portion of the liver which was supposed to have been the seat of cancerous disease. They were removed from the body of a clergyman, sixty-two years of age, who had always enjoyed good health previous to a year ago, when he first began to suffer from irritation about the stomach and other symptoms of dyspepsia. He also became subject to attacks of chronic diarrhoea, which, after lasting for a short time, would be followed by obstinate constipation. Dr. Fisher first called to see the patient in July last, when he found him suffering from the symptoms already described. He saw the patient regularly from the last of October, when he found his sufferings were much aggravated, and that he had been vomiting blood. The diagnosis then made was cancer of the stomach. From this time he lost flesh quite rapidly. The treatment was merely palliative in character. On post-mortem examination, a large amount of fibrous material was found deposited about the pylorus, where slight adhesions existed to the surrounding parts. The liver was somewhat enlarged and studded with yellowish nodules which varied in size from that of a cherry to the fist. The microscopical examination was made by Dr. Post, who could detect the existence of no positive evidences of cancer.

Correspondence.

INHALATION OF NITRATE OF SILVER.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—An article appeared in the *Times* of March 2d, in reply to mine of Feb. 2d, on Inhalation of the Nitrate of Silver. The writer, Dr. S.—, might convey the impression that the powder is administered in a "heap," as he says he would "not be willing to make a strong inhalation upon a heap of powdered nitrate of silver placed in a small glass tube."

Now that heap may consist of from one to three grains, as the case may be, which would not be a very dangerous heap, when we know that some of our prominent men have recommended one drachm of the nitrate of silver, in solution, to be injected into the lungs. The powder cannot be inhaled in a *heap*. We know, if a little or much powder be placed in the tube (a small one), and blown out, it will pass out in a scattered condition, and not in a "mass or body." The effects are the same when inhaled; it will be drawn into the trachea in the very same condition.

Dr. S.— says, "he has made use of a glass or tin tube, one inch in diameter, and ten inches long, and a quart jar, into which he places the powder; after which, the jar is heated, and well shaken. He then tells the patient to plunge in, and make from one to three inhalations." Now there is one advantage he has in his *tube*; he will, or rather his patient, be quite sure to get enough of inhalation for once, if the powder in quantity is in any proportion to the size of the *jar and tube*; and "I confess I would not be willing to make three strong inhalations of that *heap*, especially after the shaking." The tube I make use of is four inches long, and three-eighths of an inch in diameter; and it is necessary to pass the tube well back on the tongue, and as near the epiglottis as possible, without touching the same. With a tube one inch in diameter this cannot be done, and thereby the principal object would be defeated (the inhalation of the powder); because, by introducing the tube just into the mouth, a very little, if any, would be received into the trachea. I neglected to say that I prefer rock candy to triturate with the nitrate of silver, on account of its more perfect crystallization, and that it can be more finely triturated. A gentle heat should be

applied to the powder before using, so as to absorb any moisture remaining therein. I have used this treatment for seven years, with the greatest satisfaction in every case, and without any unpleasant symptoms. At the present time I have a case of laryngitis under treatment, and where the voice was almost entirely gone, and under the treatment he has improved rapidly: the voice almost restored. To-day I inhaled two grains of the powder, to see for myself what the effects would be, and, for a few moments after, there was a sense of constriction of the trachea, with a slight effort to vomit. For two hours after that I experienced a pleasant warmth, and some expectoration followed; after that time there was not the least unpleasant sensation. The whole of the powder passed into the trachea, as I did not have any metallic taste in my mouth—as I would have done, had it not been inhaled.

D. F. FETTER, M.D.

151 WEST 42D STREET, March 12, 1861.

LEAD IN FLOUR.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—During the winter of '59 and '60 a great number of cases of lead poisoning occurred throughout the eastern portion of this county. Whole families were attacked by the disease simultaneously, and in a few instances fatal results followed. The source of the lead was for some time a mystery. But one day a woman discovered some shining particles in a quantity of yeast that she had mixed with flour. This directed investigation to the flour. A quantity was sent to my office. An analysis in the ordinary way gave evidence unmistakable of the presence of lead. Profiting by the hint derived from the discovery in the yeast, I afterwards took another portion of the flour, and filled an ordinary washbowl (carefully cleaned) three-fourths full. I then filled the washbowl with distilled water, and by means of a series of washings and decantations, I obtained at last in the bottom of the bowl a fine dark-colored powder. This powder, while still damp, was scraped into a mass, and subjected to the blowpipe upon charcoal. The result was a bead of metallic lead.

The next step was to account for the presence of the lead. It soon turned up that in a mill which supplied that region with flour, some of the grinding machinery had become broken, and the miller, in his wisdom, had conceived the idea of remedying the trouble by filling the holes with *melted lead*. As the stone wore smooth the lead wore off with the rest, and thus became mingled with the flour.

I know of but one other reported case of lead poisoning similar to the above (Taylor on Poisons, p. 448). It occurred at La Tremblaye in France in 1857, and was occasioned by a *lead cement* being used in the grinding machinery.

H. M. LILLY, M.D.

Fond du Lac, Wisconsin.

CONCEALED TESTIS.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In your issue of March 16th, I found reported an operation by Dr. W. H. Van Buren, for the removal of a concealed testis from the inguinal canal. The report brought to my mind a case related in Hutchinson's *Practical Observations in Surgery*, where a man sought to procure his discharge from military service by feigning hernia. This he did by voluntarily retracting the testicles into either inguinal canal. Their absence from the scrotum caused the wary surgeon to tax the man with the imposture; when relaxing the effort of will, both testes dropped into their accustomed place. He afterwards exhibited the wonderful control he had acquired over the cremasters, elevating either or both glands slowly or rapidly, and even raising the one while the other was descending, alternating the action at will.

If voluntary contractions of the cremaster could produce such results, is it not possible (to me it seems probable) that a persistent involuntary contraction might have gradually drawn the testicle into the canal, in Dr. Van Buren's case, in the same way that those deformities are produced, for the relief of which the operation of tenotomy was invented; and that, instead of being a true case of monorchidism, the man was right when he insisted, that "up to the age of ten years he had two testicles in his scrotum?"

SIGMA.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

Dec. 26, 1860.—Prof. Bennett relies much upon this formula for the relief of the nausea of phthisis: *R* Naphthæ medicinalis ʒi.; tr. cardamomi co. ʒi.; misturæ camph. ad uncias sex. M. A tablespoonful to be taken occasionally. Dr. Begbie performed thoracentesis last Friday upon two patients. From one, a large man, he took away ninety ounces, and on the day following seventy ounces more, of a sero-purulent fluid which was densely albuminous. On visiting the man an hour only after the first operation, over the upper half of that side of the chest vocal fremitus could be easily distinguished, and pulmonary respiration began to be audible just under the clavicle. On the second day after the second operation, on applying the ear and giving him a shake, a most exaggerated succussion-sound was elicited, which, to drop scientific nomenclature, was exactly equivalent to, and as loud as, the washing about of fluid in a half empty barrel. Dr. Begbie thought that, as the lung had gradually expanded, air had found its way into the pleural cavity through some small opening in the pulmonary pleura. From the other case, a little girl, six or seven years of age, ten ounces of pus were taken by an exploratory trocar. In this case also, since the operation, there has been progressive amendment.

Dec. 27.—To-day I saw many interesting cases in the female wards of Dr. Keiller. He showed me a case of tumor in the abdomen, the existence of a polypus hanging into the vagina, an uterine bruit-souffle which I was enabled to hear very distinctly—by pressing the stethoscope down firmly upon the edge of the tumor—pointed out to be fibrous tumor of the uterus. Dilatation of the os-uteri had not as yet enabled him to determine whether it was or was not intra-uterine—most probably it is not. A case of remarkable recovery from peritonitis was pointed out to me. Here a pelvic abscess, after having been tapped several times from the vagina, seemed to burst into the peritoneum just as a puncture was being made into it. At any rate, intense peritonitis came on, which so overpowered the woman that, at one time, the pulse was entirely gone. Nourishment, large amounts of stimulants, and small doses of opium, were assiduously given until now convalescence is established. Dr. K. remarked that he had seen two other cases where a pelvic abscess had burst into the peritoneum, and death had taken place. A post-obit specimen of cancer of the uterus was shown me, where only the extreme fundus of the organ was free from disease. When the patient first came under observation it was proposed to amputate the cervix, but, just as the craseur was about to be applied, the true extent of the disease was discovered. An aggravated case of prolapsus uteri was shown, which had been greatly benefited by the use of Dr. Simpson's latest pessary, which I will endeavor to describe, though difficult to accomplish without an engraving. It is an oval ring of gutta percha, curved on the flat, and the oval at one end pinched up much narrower than at the other end. This is introduced with the broad end backwards, and concavity of the curve downwards. A case was also shown me of laceration of the perineum, all but a few fibres of the sphincter ani, complicated with ulceration of the cervix. Dr. Keiller remarked that he had had these ulcerations heal rapidly while applying to them

constantly for some time pledgets of lint soaked in cold water. He thought they healed by the modelling process.

Jan. 2, 1861.—Professor Miller remarked that, in cases of hæmorrhage after the extraction of a tooth, he felt warranted by his experience in saying that the very best possible thing you could do was to, without delay, apply a compress soaked in tr. matico, and keep up continual pressure with the finger. A case of hæmorrhage from the gum occurring in an old lady had taught him that the actual cautery was not the thing. A few hours after each application hæmorrhage recurred from the local excitement caused by the attempt to throw off the slough. Each application of the hot iron made matters worse, and the case terminated unfavorably.

He remarked that he did not think very long incisions in phlegmonous erysipelas judicious. They should be made where there was tension, and not extending, as he had seen, from the trochanter to the malleolus externus. Carbuncles, when seen early, were best treated by free incisions entirely through all diseased tissues; but when sloughing had commenced, especially in the aged, in addition to the incisions, potassa fusa must be used, so that the sloughing tissues, with their poisonous, depressing influences, may be got rid of as soon as possible.

Jan. 3.—Mr. Syme showed a patient whose varicose veins were going through a spontaneous cure. Great exertion had brought on inflammation in them, as evidenced by great enlargement, tenderness, and hardness, the result of which would be complete cure. He remarked that a cure for varicose veins remained yet to be discovered by some ingenious gentleman; but that he had frequently noticed cases of spontaneous cure in the manner above described, more commonly, however, in summer. A young man, seventeen years of age, was shown, in whom disease of the elbow-joint had existed for twelve months, the principal symptoms of which were great and constant pain and startings at night. Seven weeks ago the actual cautery was applied freely over both condyles, and now the arm appears quite well. The patient himself avers that he can use it as well as ever. A case of fistula in ano, marked by very great induration of the surrounding parts, gave occasion to the Professor to warn the students against a hasty diagnosis in diseases of the rectum. In this case he said that the hardness was so great that when he ordered the man brought in, he was of the opinion, from a very cursory examination, that it was a case of carcinoma. Careful examination with a probe showed it to be nothing more than fistula, which was speedily remedied. He urged the necessity for introducing the finger into the rectum in almost every case, in order to make sure that a fistula or hæmorrhoid did not conceal a more important disease.

A case of Hydrocele of the cord was brought under notice, Mr. Syme remarking that, when situated high up, this disease was very difficult to diagnose from hernia. It was tapped and then injected with undiluted tr. of iodine, the Professor remarking that it was in these cases that there was danger of the escape of the fluid into the cellular tissue on account of the unusual thickness of the walls of the sac. He spoke of having injected a cyst in the calf of the leg with the iodine, and seems to employ it with very great freedom in almost all cysts.

Mr. Syme called our attention to a case in the Infirmary of fracture of the skull with puncturing of the dura mater, caused by the fall of a slate upon the head of a young girl. Although it is five days since the accident, and there is no bad symptom to be detected, the Professor considers her to be in great danger. He thinks the prognosis in all injuries of the head should be very guarded, especially in cases where there is puncture of the dura mater.

Jan. 7.—A case of varicose veins gave occasion for the remark that, although obliteration of the veins could be produced with safety at points where pins were thrust under the veins and ligatures twisted over them, it was very generally acknowledged that there had not yet been discovered any complete cure for this affection. I recently

came across, in the dissecting-room, a remarkable proof of the truth of this observation. I found in a subject that I was dissecting distinct marks of repeated operations upon varicose veins of one lower extremity. Complete obliteration of the calibre of the vein had been effected at the site of each operation, but so numerous and perfect were the anastomoses that the veins directly above and below were fully dilated. Mr. Syme remarked that the black wash, composed of hyd. chlor. mitis 3 i., to aquæ calcis 3 xvi., speedily healed ulcers arising from these dilated veins. A distinguishing characteristic of these ulcers is the very severe pain they give rise to, causing the sufferer sometimes to desire amputation to rid him of the ever-recurring misery. A woman was shown who two or three months ago broke her left fibula just above its lower extremity. The foot was allowed to incline backwards, and the bone having united in that position, the foot is entirely useless. This backward inclination, Mr. Syme remarked, very frequently resulted from fracture of the fibula, and is best remedied by carrying out the same principle of treatment that Dupuytren inculcated in distortion to the side. Curiously enough, he said, Dupuytren, in treating the backward obliquity, forsook his own good plan, and pushed the foot into place, instead of pulling it by bandages. He, Mr. Syme, placed a pad upon the front of the tibia, and upon the pad a thin board splint arching down over the instep. It will be readily seen that, after the splint and pad were bandaged to the limb, a few turns of bandage around the heel and the stirrup-like projections of the splint will readily correct any tendency to displacement.

Medical News.

APPOINTMENT.

JOHN T. METCALFE, M.D., Consulting Physician to Bellevue Hospital, in place of Dr. JOHN W. FRANCIS, deceased.

AN Act has passed the Legislature of the State of New York, chartering the Bellevue Hospital College. It is the design of the Medical Board of Bellevue Hospital to organize a Medical School in immediate connexion with that institution.

HUMBOLDT'S LIBRARY.—Mr. Henry Stevens, of London, has purchased the library of Humboldt, and is about to sell it at auction.

HUNTER'S MANUSCRIPTS.—PROF. OWEN has completed his task of editing the unpublished manuscripts of John Hunter. The work will afford additional evidence of the industry and genius of the great surgeon and physiologist.

The Annual Commencement of the Massachusetts Medical College took place on Wednesday, the 6th inst., when thirty-nine candidates received the degree of M.D. Among the graduates were several from the British Provinces. The address on the part of the Faculty was given by Prof. Shattuck.

Dr. ARAX, one of the most promising and talented physicians of the French metropolis, has just died, after a short illness, of rheumatism, with cerebral disease, at the age of forty-four.

Baron SEUTIN (*British Medical Journal*), a medical man in the Belgian Chamber of Deputies, made the following remarks against the neglect shown to country practitioners in the distribution of honors:—"Courage is always to be honored; but I maintain that the village doctor, in braving cholera and typhus, shows greater courage than the soldier and the civic guard, who are so frequently decorated. I do not reproach the minister; but I believe that his friends around him do not point out to him, as they ought, the services rendered by country doctors. They are exposed to all rigors of the season, and it may be truly said that no profession is more painful than theirs. How can you, then, hope to encourage their profession, if you pass over, in such complete silence, those who show so much devotion and self-denial?"

Original Lectures.

LECTURES ON DIPHTHERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE I. PART II.*

Invasion and progress.—Early symptoms often insidious.—No guide in prognosis.—Membrane in the Fauces—in the Nasal Passages—in the Œsophagus—the croupous form—Buccal Diphtheria.—Importance of examining the Cervical Glands.—Membrane in the Maxillary Sinuses.—Diphtheritic Ophthalmia.—Collapse during apparent convalescence, and in the acute stages.

Now, then, we come to consider some of the circumstances that attend the invasion of this disease, and those which mark its progress. As to its initiatory symptoms, they have no definite relation to the future severity of the disease, or to the parts that are to be the seat of the inflammatory exudation. When diphtheria appeared among us for the first time as a prevailing disease, the cases that I saw were almost all of them ushered in by pretty acute symptoms; a chill, followed by a fever; and then, in a small proportion of cases, a chill and fever alternating two or three times in the course of a single day. Those instances in which the chill was repeated were rare; but a very decided invasion was, in the cases that I saw, the rule in the beginning of the disease. As it went on, the symptoms of invasion were less and less marked, and not unfrequently, as is now noticed, it occurs without any that attracted attention. Several instances of this kind now occur to my mind; but two of these will serve for illustration:

Two children, two and a half and four years of age, were observed to have the symptoms of slight catarrh for two or three days, but there was nothing to awaken anxiety. They followed their amusements in the nursery as usual, when at length the mother noticed a croupy cough in the youngest, and sent for the family physician. He found the usual early symptoms of croup, and a diphtheritic membrane on the tonsils, extending downwards beyond the reach of sight. He examined the other child's throat, not because he expected to find any evidence of grave disease, but from motives of prudence, and was surprised to find the tonsils almost completely covered with false membrane. The youngest grew rapidly worse, and in four days died of diphtheritic croup. The eldest was at no time dangerously sick, and did not keep her bed a single day. The membrane was detached in two days, and did not reappear. The only medicines were tonics and chlorate of potassa, with full nutrition. Bretonneau, in examining the throats of young persons in a school where diphtheria was prevailing, found the membrane in many instances where there was no complaint of ill health, and where it was not suspected till it was actually found. Such cases will teach you two important lessons: first, that the disease does not always make its invasion by any symptoms calculated to excite alarm; and secondly, that those symptoms, when once declared, are to be considered by no means as a measure of its severity. It is not easy, then, to fix in very definite terms the character of the invasion, the symptoms being sometimes very decided, at other times very insidious. But where the disease is once formed, you look for symptoms relating to the fauces, trachea, nasal passages, mouth,

or œsophagus, for it is in these that the membrane is most frequently formed

When it is confined to the *fauces*, there is often but little occasion for alarm. These are the cases from which most of the recoveries come. The breathing is not interfered with, there is not necessarily much cough, the general health may not suffer materially; and yet, let me say to you, that when it forms in the fauces only, and does not extend beyond, you will not unfrequently find, as the disease advances, the most formidable symptoms; and as we shall see by and by, too often a fatal result.

When it advances into the *nasal passages* you will have indications somewhat before the formation of the membrane. You will usually see it in the fauces, perhaps folding back beyond your view upon the palate; the nose will become a little red, and there will be a little snuffling upon one or both sides; directly there is a discharge of a yellowish watery or ichorous matter nearly transparent. This may irritate the skin of the lip a little, and may, in the end, cause swelling of the upper lip itself. Soon after this discharge makes its appearance, there may be seen forming upon the swollen mucous surfaces, a delicate membrane; and this growing thicker and more abundant will not unfrequently stand out upon the white tissues joining the red of the nose. And then still the ichorous matter will continue to be discharged; it will sometimes dry upon the false membrane, and finally plug up the nostrils altogether, so that respiration can be performed only through the mouth. At other times, the nostrils are not plugged up, and breathing through them is only difficult.

When the membrane forms in the *œsophagus*, you have no very decided indications of its presence there. There is no great difficulty of swallowing; there is no particular pain that will lead you to the suspicion of its formation in that tube. You learn it mainly from the fact that ribbons or a large membrane is vomited up, or perhaps the same things may be found in the stools.

But when the *larynx and trachea* are invaded, you have the most formidable variety of this disease. Then it is that you have everything to fear. Then the chances for recovery are scarcely so good as one in eight or ten of all who are attacked. The symptoms of this invasion of the trachea and larynx, are precisely or almost precisely those of croup. The voice is changed; it loses its compass and strength, and frequently is reduced to a whisper. The breathing becomes noisy; we call it stridulous; the cough for the most part becomes hoarse and croupy, occasionally shrill and brassy; there is difficulty of breathing; the child's head is thrown back, to open the larynx fully, and give force to some of the respiratory muscles. He not unfrequently vomits; but this affords him very little relief. The difficulty of breathing becomes more and more considerable as the disease increases, and in some instances there is very marked restlessness. In other instances there is much drowsiness. The surface of the body often shows the marks of incomplete aëration of the blood. The nails and lips become blue, or there may be a general cyanotic condition. The wings of the nose are expanded in inspiration. Everything shows that the child is about to die from asphyxia or apnoea. While in the other forms of the disease children die from the general influences of the diphtheritic poison, these scarcely live long enough to experience them.

This membrane may be found *lining the whole mouth*. Then it usually is produced first in the fauces and extends forward. In my observation the mouth does not take on this diseased action in the mild cases, but rather in those in which the disease is invading the nasal and respiratory passages. It has been known to begin on the gums (gingival diphtheria), and extend backward into the fauces, so covering the mucous surfaces of the mouth. When the mouth is so covered the red tissues are everywhere—on the roof, the inner surface of the cheeks, the tongue, the gums—hidden by a layer of exudation that looks like a half dried coating of plaster of Paris. As this peels off portion by portion,

* *Erratum*.—In Part First of this Lecture, second column, fifth line from the bottom, for "inches" read lines.

the natural structures are left red and shining. This stomatic diphtheria alone is no more grave than other forms of the same disease, and much less so than the tracheal variety. It produces but little of actual pain, but it makes the mouth stiff and embarrasses its motions; destroys the taste for the time, makes it painful to talk and swallow. Hot and stimulating drinks appear to be in the highest degree unpleasant. Indeed, the little sufferers affected in this way sometimes resist every administration by the mouth, with a perseverance, I may even say a frenzy, which only an absolute and apparently cruel firmness on the part of attendants can overcome.

In all these forms of disease, one feature is almost uniformly noticeable, and that is a *swelling of the glands* at the angle of the jaw, and of those extending downwards from this point. Indeed, it is regarded as one of the diagnostic marks in the early stage, that these glands, though ever so little, are swollen. They are usually swollen *unequally*. When the disease is prevailing, Bretonneau warns us, at the least snuffing, on the slightest indication of coryza, to feel behind the angle of the jaw, and below the lobe of the ear, and so down the side of the neck for swollen lymphatic glands. We are then to examine the upper lip. "In simple coryza the skin is reddened equally under each nostril, while in the Egyptian disease it is only on the side of the glandular swelling. If the swelling exists on both sides it is unequal. On the side where the swelling is least, the redness of the lip will be least. From the period of this discovery, we are certain there is a special affection—in fact, the Egyptian disease." By "Egyptian Disease," M. Bretonneau means diphtheria.

In this connexion, I may better say that this disease may appear *on the gums*, as it often appears on the tonsils, without extending beyond the parts it first attacks. Such cases belong in general to the milder forms of diphtheria.

Among the rarer seats of diphtheritic exudation I may mention the *external ear*. This tube has been seen lined by it. M. Bretonneau reports an instance in which the *lining membrane of the antrum highmorianum* was fully involved. A poor Jew had died while the physician was making preparations for tracheotomy. The false membrane was found in all the air passages as far as they could be followed and also making an *adventitious lining of both maxillary sinuses*, filling both with a turbid serous fluid, in which were floating bands of false membrane as in a pleuritic effusion.

I have here a letter from Dr. Whittlesey, Physician to the Children's Hospital on Randall's Island, relating to some cases of *diphtheritic ophthalmia* that occurred there some time ago. Dr. Rives, assistant physician in that institution, two or three years ago, exhibited to me some specimens of this disease, and they were shown to the class then attending lectures here. The eyelids were both covered by a firm elastic exudation, and the same membrane covered the conjunctiva of the eye as far as the cornea. Dr. Rives informed me that in his department of the hospital there had been at that time five cases of this affection, more or less extensive, and that in his cases, if the patient survived, the inflammation was destructive to the eye, and blindness followed. Dr. Whittlesey's letter informs me that these cases occurred in the winter of 1857 and '8, before diphtheria became epidemic in this city, and while it was prevailing in Albany. But a similar disease showed itself in that institution four years earlier. Dr. Whittlesey states that, "In the winter of 1853-4 measles and scarlet fever prevailed in this institution, and there were three cases of diphtheria. The patients were children that had suffered from measles and were in a feeble emaciated condition. They all died in a few days after the membranous disease appeared. The deposit or exudation was upon the inside of both eyelids, nearly a line in thickness on the upper, and of such consistence that it could be removed with forceps, retaining the form of the lid as a cast, presenting an appearance similar to that of the specimen presented to you by Dr. Rives." This form of diphtheria has been repeatedly noticed in Europe.

These are, however, only the local manifestations. Those of a more general character are still to be considered. It not unfrequently happens that persons who have gone through with all that I have now described to you, and appear to be recovering, suffer still from a prostration that seems almost unaccountable. Take one or two fatal examples. Early in the occurrence of the epidemic, in a patient of Dr. Crane's, the membrane, if I remember rightly, was found, as it is commonly, in the fauces, but not beyond. The patient went through with the earlier stages of the disease, the membrane exfoliated, and everything seemed to be doing well. His convalescence was announced to the friends of the family. About ten days after the membrane disappeared, Dr. Crane was called in haste to see the child, as it was very much worse. When he reached the house, he found that he was so much prostrated that there was scarcely any pulse. The patient had been sitting up the earlier part of the day, but now he could not raise his head from the pillow without fainting. It seemed to the Doctor that there was internal hemorrhage, yet there was no other manifestation of it. In this sinking condition the little one remained from two in the afternoon until seven in the evening, when he died, precisely, if I can judge, as persons usually die from the rupture of some vessel that allows fatal hemorrhage into the intestines, or uterus. On the morning of the day on which he died, there was nothing to lead to the suspicion that he would not get well, except the treacherous nature of the disease. In Dr. McCready's case, already referred to, a similar history is to be given. This child had an extraordinarily thick membrane formed upon the tonsils and uvula; you see a portion of it in that vial. The symptoms were those of ordinary sore throat at first. In a day or two the tonsils became covered with the membrane. There was not much disturbance of the general health. In a few days exfoliation took place, and there was promise of speedy recovery. A week later, however, membrane appeared in nostrils; rapid collapse followed, and the child died in twenty-four hours.

A son of Mr. D., two years old, had the diphtheritic membrane first in the fauces, afterwards in the larynx, and probably in the trachea. Little hope was entertained of his recovery for many days. At length the croupous cough, the rapid and stridulous breathing slowly subsided, with the expectoration of fragments of membranous matter, and the child appeared to be convalescent. The danger seemed to have passed, and he was taken into the country. But there he lost strength and flesh, sank into deep prostration, and died in three weeks without renewal of the dyspnoea, or any other symptom of throat disease.

Well, now, what is it that produced death under these circumstances? The obvious answer is—a certain poison, the nature of which we do not understand, which, though it has spent its force to produce local manifestations, has not yet exhausted its fatal control over the nervous system. It seems to destroy, making allowance for the difference in time, as prussic acid does, by overwhelming the nervous forces. I know nothing else to say about it. A case or two more to illustrate this point. In a patient on Staten Island, whom I saw with Dr. Gunn, the history is a little different, and yet no more favorable. A young lady fourteen years of age, had the membranous disease of the fauces; it was of the variety once called the sloughing sore throat. A membrane had formed of considerable firmness and thickness, and apparently in successive layers; the older parts were sloughing off from the newer. Her throat looked as if there was an abundant dirty purulent slough covering it. This is no uncommon appearance; and these very appearances have led to some of the names which have been given to this membrane in the older time. You can hardly believe when you see such an appearance that it is not really a gangrenous condition of the natural tissues of the parts; but if you watch such a case, and it has a favorable termination, you will see that the whole of this material

will clear off without even so much as a depression being left. This was the condition of the young lady's throat. Her breath was somewhat, but not markedly foetid. She had been sick just six days, when I saw her. She had been attacked with sore throat pretty suddenly in church. Not having a chilly feeling, but still experiencing general discomfort, she left the church for her father's house. The physician was called the next day, and found the membrane. It continued then, from Monday until Saturday; and now without any great loss of strength, without any difficulty in breathing, without any membranous formation of the nares, without any evidence even that it had formed in the œsophagus, this young woman was about to die. At two o'clock in the afternoon of the Saturday, her mind was perfectly clear, her strength such that she had to be admonished not to use it. When it was proposed to do anything, to look at her throat, for example, she would jump to sit up in bed. This, of course, we forbade. *There was a blueness over the whole surface of the body, and yet the pulse was not very feeble. Her pulse did not give warning of what was to come in five hours, and yet in that time she was dead. She did not die of dyspnoea. She did not die of the direct effects of inflammation in her throat, but of diphtheritic poison, operating in some way or another apparently to prevent the free aeration of the blood, and how that could be I do not know, perhaps by some paralyzing influence on the pneumogastric nerve.*

A beautiful girl four or five years of age, had an exudation on her tonsils which was at first treated by repeated application of a strong solution of nitrate of silver. Afterwards by milder local applications, as chlorate of potassa. She had but little fever, and maintained, for the most part, a fair appetite. She was most of the time cheerful and playful, though almost wholly kept in bed as a measure of prudence. The membrane forming in successive layers on the tonsils, lasted twenty days, as I have said, without extending to the air-passages or the nostrils. From the sixteenth day, she lost her relish for food. On the eighteenth, the pulse began gradually to increase in frequency without heat of skin, and without any discoverable cause advancing from eighty-five in the minute to ninety-five, one hundred, one hundred and ten. The next day it increased still in frequency to one hundred and twenty, to one hundred and thirty, and one hundred and forty; and on the third day of this acceleration, she died, as the fire dies out for want of fuel. There was not the slightest dyspnoea from first to last—no hoarse cough. There was no visible hemorrhage. This is the case in Dr. Noyes's practice, already spoken of.

You see, then, that there is a great deal in this disease beyond its merely local manifestation. I have not finished describing to you the circumstances that may prove fatal after the earlier periods of the disease have passed.

syphilitic treatment prescribed by a French physician. This last winter he contracted a third gonorrhœa, which lasted but a few days, and was followed by a gleet. Since that time the patient finds that his general health is much weakened, his sight is quite affected, the appetite lost; there is usual constipation, and the power of the genital organs is nearly exhausted. He cannot walk without his legs becoming numb and dull; their sensibility is remarkably diminished, and most generally he experiences constant pain in the loins and in the back part of the head. A careful examination of the urethra shows the existence of a stricture in the spongy portion, which surely causes the gleet under which he suffers. I advised the patient to have the stricture treated by progressive dilatation; to take every morning and night an injection with zinci sulphatis, acetatis plumbi, aa ʒj., aquæ dist. fʒ viii., to be purged occasionally with pil. rhei co. gr xij., to take three times a day a pill with ext. belladonnæ ¼ grain, pulv. ergotæ gr. iij., and in the morning a cold douche upon the spinal cord, and to use a generous diet.

I need not enter into unimportant details of this treatment, which the patient followed regularly. May I only say that the progressive dilatation and the injections, as well as the use of belladonna and ergot, and of the hydro-therapeutic means, caused in five weeks the disappearance of the gleet, and of the incipient paraplegia. At the end of July the patient, on my advice, went to take the Barège sulphurous bath.

CASE 2.—*Stricture of the Urethra—Retention of Urine—Cystitis of the Neck—Paralysis of the Lower Limbs—Cure.* Nov. 29, 1860.—M. J. O——, unmarried, aged 32 years, came under my care in November 29, 1860. This patient is a stout man, of good constitution, and has been travelling a great deal during the eight past years. He has had several gonorrhœas, for which he had never been properly treated. The last one he contracted three years ago, and for eighteen months past there has been some difficulty in passing water, accompanied with pains in the urethra, and at times about the loins. Having been exposed to the cold weather and rain during the past few days, he began to feel yesterday evening a great difficulty in passing water, suffering pain in the penis, and much tenderness in the pubes. This morning the patient is restless, the pulse strong, and there is complete retention of urine with great desire to pass water, tenesmus, and a considerable dullness in both legs. I endeavored to introduce a catheter into the bladder, but it was impossible on account of the contraction of the urethra, and the pain it gives the patient. An enema was prescribed with two ounces of gruel and fifteen drops laudanum, and a hot bath at 90° Fahrenheit, to remain in it half an hour. Some relief was obtained by these means; there were a few drops of urine passed, but the retention and the pains continued as before. The following liniment was then applied to the pubes; tinct. bellad., tinct. aconiti, chloroform. aa ʒiv., ol. oliv. ʒj.; after two hours of unsuccessful trial to pass the catheter, I decided to put the patient under the influence of chloroform. He at once began to expel the urine, but the stream not being constant, the catheter was introduced without difficulty, and the bladder; emptied. The urine was in considerable quantity, very mucous and red. The catheter was left in the bladder, the effect of chloroform disappearing, I was able to ascertain that there was cystitis of the neck, the instrument producing no pain whatever when pressed against the walls of the bladder, whilst it caused severe contractions and could hardly be moved without exciting extreme sensibility in the neck. I must say that the diameter of the instrument employed was three millimetres, or No. 9 Filière Charrière. After the above operation, the patient took the following mixture; mist. acaciæ ʒss., olei terebinthinæ ʒxv., aq. dist. ʒj.; and went to sleep for five hours. At 6 P.M. had fever, with chilliness and numbness in the legs, which he could scarcely move. The catheter was passed with great pain, and six grains of sulphate of quinine ordered to be taken *illico*, and during the night a

Original Communications.

CASES OF REFLEX PARAPLEGIA.

BY

M. GONZALEZ ECHEVERRIA, M.D.

LATE ASSISTANT PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTICS OF LONDON—CORRESPONDING FELLOW OF THE "SOCIÉTÉ D'ANATOMIE DE PARIS," FELLOW OF THE MEDICAL SOCIETY OF LONDON, ETC.

CASE 1.—*Strictures of the Urethra—Gleet, Reflex Paraplegia.* Cure.—June 12, 1860. Mr. A. L——, unmarried, 28 years old, and of rather a weak constitution. He had very much abused his health by masturbation during his youth. When eighteen years of age he contracted a gonorrhœa, which he cured himself with copaiba and stringent injections. He had a second one two years ago accompanied with a chancre and indolent bubo, and then submitted himself to an anti-

purge with three of the following pills: Pil. colocynth. eo. 3 ss.; pil. galbani comp. 3 j.; ol. crotonis ℥ij. M. f. pil. xvij.

Nov. 30.—This morning no fever nor chilliness, but the numbness and dulness in the legs continue. Sensibility of the latter is normal. The bowels have been freely open; urine not so red, and expelled painfully without the catheter. *Prescription*.—Pilula—Ext. bellad. $\frac{1}{4}$ grain, pulv. ergotæ gr. iij., three times a day; liniment—belladonna, aconite, and chloroform to the pubes. Generous diet.

Dec. 1.—The patient is better, water passed with little trouble. Legs in the same condition. Prescription as before.

The same treatment is continued till the 9th, and from this date I commenced with the progressive dilation of the stricture. Three different diameters were passed up to the 17th, at which date the difficulty in the movement of the lower limbs was much diminished.

The treatment was carried on with the addition of a sulphurous bath twice a week, and on the 26th the patient walked and passed water freely, although the stricture has not disappeared, and there is a mucous discharge by the urethra every morning. He was advised to take twice a day an injection, with two drachms of sulphate of zinc in six ounces of water, and to continue with the above prescriptions. The amelioration progressed gradually till the 3d of January, when the patient was obliged to leave town.

CASE 3.—*Amenorrhœa with Paralysis of the Lower Limbs.* Cure.—19th Dec., 1860.—Miss M. S.—, aged 19 years, of good constitution, without any hereditary or acquired disease. Had her menses for the first time when sixteen years old, since which, up to the present time, she has always been regular and enjoyed good health. She took a cold bath when about to have her period, and soon after was seized with chilliness, headache, and pains in the loins. These symptoms were accompanied with fever, amenorrhœa, painful micturition, constipation, weakness, and numbness in the lower extremities, with great loss in their movement. I advised the patient to have twelve leeches applied to the top of the thighs, but as she was opposed to this application I ordered her a purge with one ounce of sulphate of magnesia and a hot foot-bath. The purge acted fairly, and caused the fever to leave her, as well as the headache; but on my seeing the patient on the morning of the 20th, I found that there was no relief whatever in the amenorrhœa nor in the paralysis. An attentive examination of the limbs showed me that sensibility had totally disappeared as to the skin of the left leg; that of the right one being somewhat sensible. Both limbs were dull, and could hardly obey the will; if pressed strongly, there was a profound feeling in all the muscles. After these symptoms, I decided to try electricity for the amenorrhœa. I applied the extra current of Ruhmkorff's electro-magnetic apparatus for ten minutes, each of the reophores being put upon the ovaries. Shortly after this operation the pain in the loins left her, and at noon there was a show of the menstrual discharge preceded by severe uterine pains. Second application of electricity at 7 P.M. A hot foot-bath during the night, and an enema with twenty drops liq. opii sedat.

21st.—The catamenial discharge took place without pain during the night, and continued to be normal. Dulness in the legs diminished, but sensibility is still lost in them. Application of electricity, one reophore applied to the sacrum and the other moved along the skin of the legs. Three grains of iodide of potassium to be taken three times a day in half an ounce decoction of bark. Pil. rhei eo. gr. viij. to be taken in the night.

22d.—Menses continue free; bowels opened twice this morning. Paraplegia diminished, sensibility returns in the lower limbs. Another application of electricity; iodide of potassium to be continued as before. The amelioration from this date progressed: electricity used for a week more, and she took the iodide till the time of her next period, which came on three days later, preceded by slight pain in the loins, but without any symptom of paralysis. The patient, however, is ordered to continue with the iodide for

three weeks more, as a preventive to pains in her future turns.

The number of cases of *reflex paraplegia* altogether observed by Stanley, Rayer, Le Roy d'Étiolles, Jr., Macario, Laudry, Graves, Spencer Wells, and our eminent friend, Dr. Brown-Séquard—is sufficient to prove the existence of that peculiar kind of paralysis. Therefore those I have just presented are only intended to show the points in their treatment worthy of interest.

The first case is a remarkable proof of the favorable effect upon the paralysis by the changes in the urinary disease, and of the unquestionable benefit of belladonna and ergot, and of the hydrotherapeutic treatment. The same good effect of belladonna and ergot can be seen in the second case, and a valuable proof in favor of the administration of chloroform for obstinate retention of urine so justly recommended by Mr. H. Thompson, of London, in his excellent book on "Strictures of Urethra." I found it so beneficial in the patient I alluded to, that agreeing with the able surgeon already named, I consider it a means to be resorted to, especially when the nervous system is affected, and pain is a cause of excitation in the patient. Those accustomed to the employment of the catheter in subjects afflicted with retention due to myelitis, to cystitis of the neck, or accompanying reflex paraplegia, know how difficult its introduction is, and how great the pain it produces even when the operation is performed with caution and skill. Retention in case of cystitis of the neck is produced by a constant spasmodic contraction of the sphincter vesicæ, and under these circumstances chloroform will be the best remedy. As regards the last case, it is important to note the continuance of muscular sensibility whilst that of the skin was lost. This case confirms the advantage of electricity as a remedy for amenorrhœa, denied by Becquerel and other physicians. It is not the only instance in which I have seen electricity successful; I have had myself other opportunities of noticing the menstrual period advanced in women who were under a regular faradic treatment on account of hysterical disease. I have cured real amenorrhœa by this means only, and lately I caused the disappearance of a severe uterine colic in a case of dysmenorrhœa after a first application of ten minutes: in this same patient electricity has proved the most efficacious remedy to re-establish the normal state of the menstrual function.

I conclude by calling attention to the advantages of iodide of potassium against troubles in menstruation and uterine diseases, as observed by some other physicians. Its action, I think, probably depends upon the influence it has on the globular elements of the blood which it increases in a rapid manner, as stated recently by Ricord and Grassi.

NEW YORK, March 10, 1861.

TREATMENT OF DYSPNŒA.

BEING ONE OF A SERIES OF LECTURES ON DYSPNŒA, DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS DURING THE SPRING COURSE OF 1860.

BY ANDREW H. SMITH, M.D.

ALTHOUGH in most cases the treatment of dyspnœa is necessarily comprised in the efforts towards the removal of the obstruction to respiration which gives rise to it, yet there are cases in which the cause of the difficulty is entirely beyond our reach, or in which the danger is so imminent that we cannot wait to strike at the root of the evil, but must direct our treatment to the effect of the cause rather than the cause itself. It is to cases of this nature that I wish to invite your attention.

The essence of dyspnœa consisting in a disproportion between the change to be effected in the blood while passing through the lungs and the amount of air present to effect that change, it follows that our efforts should be directed towards diminishing this disproportion. This may be effected in different ways. Firstly, we may operate

upon the circulation, diminishing the amount of blood brought to the lungs; secondly, we may act upon the nutrition, lessening the amount of effete matter entering into the blood; thirdly, we may induce some of the other organs to perform a part of the labor which would otherwise fall upon the lungs; and fourthly, we may impart such qualities to the atmosphere imbibed, that a smaller quantity than usual may still suffice.

The first mode of treatment mentioned, that of acting upon the circulation, gives us the choice of several ways of attaining our object. The first of these is blood-letting. The immediate effect of this is to diminish the amount of blood circulating through the lungs, and thus give opportunity for a more thorough contact with the atmospheric air. A secondary effect is to render the nutritive changes less active, and thus lessen the amount of effete matter to be carried off through the lungs. In cases, therefore, where the primary disease is of a nature to be benefited, or at least not to be aggravated by venesection, we have a valuable agent in the lancet. But unfortunately, in a majority of these cases there is already great prostration; and besides, copious bleeding, by favoring effusion from the pulmonary mucous surfaces may often serve only to aggravate the difficulty. The use of this remedy is therefore restricted to a few exceptional cases.

Akin to blood-letting in its operations is the exhibition of purgatives. But the same objection, though in a less degree, exists here as in the case of venesection. Its action, moreover, is not sufficiently prompt to recommend it in a case of emergency.

Under this head may also be placed counter-irritation, which is often of service, though its action is probably through the nerves rather than through the circulation, since it is difficult to conceive how the obstruction of the small quantity of blood withdrawn from the general circulation and held in the irritated part, could affect the process going on in the lungs.

In cases of emergency, where the condition of the patient would forbid the obstruction of blood, temporary relief might perhaps be derived by preventing the return of venous blood from the extremities. In this way the labor thrown upon the lungs would be diminished, and at the same time the carbonic acid taken up in that portion of the circulation would be prevented from exerting its poisonous effects upon the nerve centres.

Simple *retardation* of the circulation does not seem to be productive of benefit in cases of dyspnœa, probably owing to the fact that, although less blood passes through the lungs in a given time, it is more intensely venous, and hence the demand for air remains the same. In a number of cases which have come to my knowledge, *veratrum viride* has been administered for other purposes, and a previously-existing dyspnœa has been aggravated rather than relieved. I am indebted to Dr. Barker for the mention of several cases of this kind occurring in his practice.

The second method, that of acting upon the nutrition, is of great importance, particularly in cases of protracted dyspnœa. Inasmuch as the amount of carbonic acid to be disposed of through the lungs depends principally upon the activity of the nutritive changes, everything which has a tendency to prevent such activity should be avoided. Hence the most perfect repose both of body and mind is important. But it is principally through the diet that the carbonic acid can be diminished. Experiments by Bernard, which have since been repeated by Cothar Meyer and others, prove that while on a vegetable diet 91 per cent. of the oxygen taken up by the blood is returned in the form of carbonic acid, and 74 per cent. is returned when animal food alone is consumed, making a difference of 17 per cent. in the labor performed by the lungs.* These figures show at once the immense advantage of animal diet in cases of dyspnœa depending upon chronic disease, and account, at least in part, for the benefit derived from the use of animal food when the lungs are

crippled by tubercular deposit. But this fact, however important, when the danger to the patient is not imminent, is not applicable when the circumstances demand prompt relief. There is a class of remedies, however, which exert a direct effect upon the nutritive changes and lessen greatly their activity, viz. stimulants. These, particularly when taken upon an empty stomach, have the effect greatly to reduce the amount of carbonic acid carried off through the lungs, and this effect is produced so speedily that it would be available, if only a moderate time were allowed for its operation. It is probable that the changes in the pulse so often observed in cases of bronchitis and pneumonia under the influence of stimulants may be attributed as well to the effect upon the respiration as that upon the system generally.

The third method which I have mentioned, that of acting upon other organs to induce them to perform a portion of the duty belonging to the lungs is comprised in efforts directed to the skin, the kidneys, and the digestive organs. The skin being an important emunctory of carbonic acid, as well as other impurities contained in the expired air, care should be taken to preserve its activity. With this view we should endeavor to keep it in a moist condition, and everything which has a tendency to obstruct the pores should be removed. For this reason the free use of oleaginous embrocations, etc., should be avoided.

It is well known that the kidneys and the lungs may act to a considerable extent vicariously. This fact suggests the propriety of stimulating the action of the kidneys by the use of means calculated to increase the amount of solid matter in the urine. In reference to this, as well as for other reasons, it would be extremely desirable to ascertain the effect of the various diuretics upon the quantity of the different substances contained in the urine, and especially of the organic salts, a subject which, I believe, has not been to any extent investigated.

It is worth a trial to ascertain whether alkalies introduced into the system might not bind a portion of the carbonic acid circulating in the blood, and provide the means for its excretion through the kidneys.

By means of the digestive organs we may introduce into the blood precisely that agent the supply of which through the lungs is deficient, viz. oxygen. With this view, a remedy has come into notice, which promises to be of great value. This remedy is the chlorate of potassa. The use of this article is not a recent suggestion, but it has been to a great extent rejected on theoretical grounds, it being alleged that the system could appropriate no portion of the oxygen contained in the chlorate of potassa, since, as was claimed, the salt appeared, grain for grain, in the urine, unchanged by having passed through the circulation.

Dr. Barker, of this city, who has given especial attention to this subject, has obtained decided advantage from the use of chlorate of potassa in a number of cases of dyspnœa. The relief obtained by some of his patients was very remarkable. In one case of severe cardiac asthma, when the attacks of dyspnœa came on, the patient would beg the attendants to give him "*some more of that breathing medicine*," a comment upon the use of the remedy of more value than any amount of theoretical discussion.

An extensive experience on the part of Dr. Barker has led him to consider this agent as an invaluable auxiliary in the treatment of the class of cases under consideration. The results which he has obtained, cannot fail to give a new impetus to the practice.

Dr. B. has also suggested the use of the nitrate of ammonia with a view to obtaining the effect of the protoxide of nitrogen generated by its decomposition.

We come now to consider what may be done to render the limited quantity of air reaching the lungs more efficient for the purposes of respiration. First of all, no pains should be spared to render it as pure as possible. Thorough ventilation should be secured, and the number of persons occupying the room should be no greater than is absolutely required. All unnecessary combustion should be avoided.

* Lemann, Handb. der Phys. Chem., p. 374.

Disinfecting agents should be employed, and vessels containing a saturated solution of caustic potassa should be placed about the room for the purpose of absorbing the carbonic acid expelled from the lungs of the inmates, or generated from other sources. The temperature should not be too high as the air is by that means rarified and deprived of a part of its arterializing power. Although these may seem points of trifling importance, yet in the aggregate they are capable of exerting a marked influence upon the progress of the case.

The dyspnœa consisting essentially in a deficiency of oxygen, the difficulty may be temporarily relieved by supplying directly this deficiency by adding pure oxygen to the atmosphere inhaled. To this, two objections have been opposed. The first is grounded upon the statement that the proportion of oxygen in the common atmosphere is precisely the one best adapted for absorption by the blood; that this proportion cannot be increased or diminished without diminishing the efficiency of respiration. This idea has been advocated more especially by Mr. Savory in the *London Lancet*. The experiment upon which he bases his conclusion is the following. He inserted the bulb of a thermometer into the rectum of a rabbit, and having noted the temperature caused the animal to inhale pure oxygen for a certain length of time, when he found that the temperature had not risen, but on the contrary had somewhat decreased. From this fact he draws the conclusion I have stated. But it is not so evident that the absorption of an excess of oxygen by the blood implies necessarily an increased energy in the nutritive changes, and must therefore be accompanied by an elevation of temperature. Indeed, it is more than probable that the chemical changes in the tissues are subservient to certain vital influences by which progressive phases of development, maturity, and decay of the form-elements are insured so long as these influences remain in undiminished vigor; and that, therefore, the simple presence of an excess of oxygen in the blood does not necessitate increased energy of the interstitial changes.

But the question is settled beyond all cavil by the appearances presented by the blood of an animal which has for some time breathed an atmosphere highly charged with oxygen. The venous and arterial blood are of nearly the same hue, and both much more florid than normal arterial blood. The muscular tissue and even the liver and kidneys are of a bright vermilion color. These changes can be explained in no other way than by admitting a hyper-oxygenization of the blood. If any further evidence were required, it is furnished by experiments which will be detailed in another connexion.

A second objection brought forward against the inhalation of oxygen is based upon the fact that dyspnœa implies not only a deficiency of oxygen but also the retention of carbonic acid in the blood. The absorption of oxygen and the giving off of carbonic acid, it is said, are distinct and independent processes, and supplying the deficiency of oxygen does not remove the accumulation of carbonic acid. If this be so, it is difficult to explain the results of the following experiment, which I have frequently performed. Tracheotomy is performed upon an animal, and a tube provided with a stop-cock is secured in the trachea by means of a ligature in such a way that no air can enter the lungs except through the tube. The stop-cock is now turned until symptoms of suffocation are produced; the eyes protrude, the pupils dilate, and the whole body is thrown into convulsions. Now, accepting the theory I have just mentioned, the carbonic acid is retained in the blood simply because there is a mechanical obstacle to its exit from the lungs. But if the end of the tube be now connected with a reservoir of oxygen the symptoms are relieved, without having increased in the least the facility for the escape of the carbonic acid. We are compelled, therefore, either to attribute the symptoms of suffocation solely to the want of oxygen, or to admit that the oxygen facilitates in some way the disengagement of the carbonic acid. Whether this exper-

iment demonstrates the fallacy of the theory in question or not, it at least demonstrates the utility of the practice to which the theory is opposed. In one of these experiments respiration was supported for twenty minutes by the use of oxygen, and the animal appeared not to have suffered by the experiment; while another animal with the same degree of dyspnœa, but breathing common air, died in two minutes.*

In order to test still further the effect of the inhalation of oxygen I have resorted to the following experiment. Tracheotomy having been performed and the tube secured in the manner before described, another tube was passed between the ribs into the thorax, care being taken to make the opening so small that the tube would fit air-tight, and to admit no air into the thorax during the operation. This tube was then connected with one branch of a U-shaped tube containing mercury, and provided with a scale of millimètres. The other leg of this latter tube being open, the pressure of the atmosphere would cause the mercury to rise in the branch connected with the thorax with every inspiration of the animal. The height to which it rose would be an exact measure of the force of the inspiration, and therefore, so long as the strength of the animal remained unimpaired, a measure of the degree of dyspnœa.

By this means the result of experiments could be reduced to figures, and at the same time, degrees of dyspnœa appreciated which would otherwise have been so slight as to be imperceptible. I found that even when the trachea was unobstructed, the range of the mercury was sensibly diminished when pure oxygen was inhaled; and that when the dyspnœa was severe, the difference amounted to nearly one half.

The results of these experiments can leave no doubt as to the efficiency of oxygen in cases of dyspnœa, nor are facts wanting in practice to corroborate the conclusions from theory and experiment.

I have twice employed the inhalation of oxygen in cases of croup, in both instances after tracheotomy had been proposed by the physician in attendance, and rejected by the parents. Although both cases proved fatal, still there was such a degree of relief given as to warrant the belief that had the powers of life not been already utterly exhausted the patient would have rallied, and by a persevering use of the remedy might have been ultimately saved.

Some time in February last, I received a letter from a physician in Utica in which he stated that he had employed oxygen in a case of congestion of the lungs occurring in a person eighty-two years of age, and in which the dyspnœa had become alarming. The benefit received was very decided. The dyspnœa was relieved, and the patient was enabled to sleep comfortably. The improvement continued, and the case terminated in recovery.

The following case, for an account of which I am indebted to Dr. Barker, strikingly illustrates the benefit which may, under certain circumstances, be obtained from the use of this remedy. Mrs.—, aged 28, was attacked with a severe bronchitis during the month of February, 1860. Notwithstanding the employment of the usual treatment and the free use of the chlorate of potassa, the disease rapidly progressed until the lungs became so loaded with the bronchial secretion as to produce the most alarming dyspnœa. Suffocation at length becoming imminent, Dr. B. decided upon the use of oxygen. Upon consultation with Dr. Doremus, however, the protoxide of nitrogen was instituted as being more readily soluble in the blood; and a quantity was prepared of which about two gallons were inhaled at a time, this inhalation being repeated two or three times after those intervals. The result was an almost immediate relief of the dyspnœa, followed by a rapid decrease in the amount of the secretion. The patient fell into a quiet sleep, the first which she had obtained for several days. This was at 1 A.M. The following day, the dyspnœa again increasing, the inhalation was repeated with

* These experiments are published at length in the *New York Journal of Medicine* for 1859.

the same success as before. From that time the convalescence was rapid. The patient entirely recovered, and is now enjoying her usual health.

In connexion with this case, I would remark that in a certain class of cases the protoxide of nitrogen would probably be found preferable to pure oxygen. In bronchitis for instance, where the pulmonary mucous membrane is covered with a layer of mucus preventing the direct contact of the atmosphere with the membrane, the greater solubility of the protoxide would be an advantage, as it would enable the gas to penetrate the film of mucus, and thus reach the absorbing surface. In cases, also, where a very powerful diffusible stimulant is indicated, the protoxide might be preferable. It is worthy of remark that in Dr. Barker's case, the effect which the gas usually produces upon the sensorium was not observed.

[For an instance in which the inhalation of oxygen was followed by the most marked relief in a case of dyspnoea from cardiac disease, the reader is referred to the *Medical Times* of November 17, 1860, under the head of "Hospital Reports."]

I have, in two or three instances, administered oxygen in cases where there had been severe dyspnoea for several days, and death was approaching more from exhaustion than from actual suffocation. In these cases, the mischief already wrought in the system is of too grave a nature to be repaired, even though its cause be removed. The case is precisely analogous to those cases of tracheotomy in croup in which the operation relieves the dyspnoea, but the patient nevertheless sinks. To be successful, the inhalation of oxygen should be employed before the lesion of nutrition has gone so far as to produce such changes in the vital organs, and particularly in the nervous centres, as to render them unfit for the continued performance of their function. Employed in time, it might often prolong life until the intensity of an acute inflammation had passed, or until time had been allowed for the application of other means of relief; or if nothing more, until friends had arrived or the disposal of property made.

But besides this first and immediate effect of the inhalation of oxygen, a secondary beneficial effect may be obtained in cases where there is effusion into the bronchial tubes. In a former lecture* I have shown that the necessary mechanical result of dyspnoea is to produce congestion of the lungs. That a tendency to effusion would be aggravated by this circumstance is obvious; and any course which would relieve the dyspnoea, and the congestion consequent upon it, would tend to lessen the amount of the effusion.

Such, then, are the means to which we may resort for the alleviation of dyspnoea when we cannot remove its cause. If the cause be transient in its nature, our efforts may make the difference between the death or recovery of our patient; and even when, as is more frequently the case, we are necessarily hopeless as to the final result, we may still do much to prolong life and alleviate suffering.

Reports of Hospitals.

BROOKLYN MEDICAL AND SURGICAL INSTITUTE.

SURGICAL CLINIC OF PROFS. LOUIS BAUER AND E. A. WIALEY.

CASES OF CONTRACTION AND FIBROUS ANCHYLOSIS OF JOINTS.

[Reported by GEO. A. OSTRANDER, M.D.]

(Continued from page 161.)

CASE VIII.—Mrs. P—, æt. 29 years, a married lady, of healthy appearance, and the mother of three children, was sent to the Institute by Dr. John Cooper, for relief from an affection of her knee-joint, which she had contracted

in her last child-bed. Originally affected with rheumatism, as it seems, in various joints, the disease had fixed itself upon the left knee-joint, causing intense pain, heat, swelling, and immobility. For this she had been treated with setons and by other means, but derived no lasting relief therefrom. When examined by the attending surgeon, Dr. Bauer, the following status morbi was noted: The left extremity is bent in its knee-joint, the biceps muscle firmly contracted, the articulation immovable, the patella firmly adherent to the inter-condyloid space, slightly drawn towards the external condyle; there is some heat and tenderness about the joint, but no fluctuation, swelling, or discoloration. The diagnosis was pronounced to be *arthromeningitis*, with fibrous ankylosis. I was advised by the attending surgeon to divide the biceps, to break up forcibly the fibrous adhesions of the joint by repeated flexion and extension, and, in fine, to apply adhesive straps with a straight splint, to secure rest and position of the extremity, which was promptly done without any difficulty, the patient being under the influence of chloroform. No constitutional or reactive symptoms followed this proceeding, but, on the contrary, the local symptoms were materially diminished, and the patient, consequently, more comfortable than previous to the operation. When, after the lapse of six days, the passive motions of the joint were proceeded with, adhesions of the articular surfaces had formed again, demonstrating thus that active disease was still extant. With the aid of a supporting instrument, the patient could, however, walk without pain or inconvenience, and as she declared herself perfectly satisfied with this result, she was, at her own request, discharged with a stiff, but straight and useful, limb. I have since (ten weeks after her discharge from the Institute,) seen her walk with perfect ease and comfort without any aid whatsoever, and she is well pleased with the results attained.

CASE IX.—Wm. J. P—, aged 12 years. This patient, some five years ago, met with a fall upon his left knee, while playing in the street. Judging from the considerable pain and ecchymosis in and about the injured articulation, it must have been a contusion of some violence. The local symptoms continued for months, with lameness, and at the clinic of a distinguished surgeon he was treated for "white swelling" and articular abscess. Continuous poulticing for one month failed, however, to bring the presumed abscess to maturity. Then blisters were resorted to, besides constitutional treatment. His improvement was very slow, yet enough to permit locomotion. There remained, however, some swelling of the joint. About twelve months ago the patient met again with a slight accident upon the affected articulation, whereupon the swelling increased to such an extent as to impress the consulted physician with the apprehension of hydrarthrosis. Blisters were again applied, and besides, tr. iodine; cod liver oil internally administered. When the patient was admitted to the Institute, on the 27th day of September ult., under the charge of Dr. Bauer, his condition was recognised as moderate synovitis, fibrous articular adhesions, immobility of the patella, contraction of the biceps, with angular malposition of the knee-joint. Dr. Halsey was requested to divide the contracted muscle, to break up, under chloroform, the existing fibrous adhesions, and to follow up this operation by pressure upon the joint, and a straight and restful position of the extremity in an appropriate splint. There were no reactive symptoms during the days following the operation. During the ensuing month the patient improved steadily, the joint losing its tenderness, heat, and tumefaction. He was discharged with a compressive bandage around the joint, a light apparatus, calculated to retain the extremity in a straight posture, and was permitted to use it with care. Since then he has been seen repeatedly, when his recovery was found to be steadily progressing. Locomotion seemed to be easier without the brace, and it was therefore discontinued. During the last three months the patient has been sent into the country, and nothing more was heard from him up to this 18th day of March, when Dr. Halsey reported

* See *Medical Times*, No. 3, Vol. I.

that he had just seen the patient, who, in consequence of a recent severe cold, had become the subject of a relapse in his original disease. Hence this case is not closed, and will be subject to further clinical observation.

CASE X.—George L., a German lad, aged 16, entered the Institute on the 11th of December, with a contraction of the right knee-joint, of long duration, which of late had become complicated with inflammation. His parents stated that, when quite an infant, his nurse dropped him, and they presume that on that occasion he met with a contusion of the joint. The best of medical treatment procured did not succeed in alleviating the sufferings of their offspring, which kept him in an emaciated and irritable condition for years. He did not commence walking until he was seven years old, and then it was with a contracted knee-joint and a limping gait. Once gradual extension of the contracted extremity had been attempted, but it was accompanied with such severe pain and disturbance of the system, that it had to be abandoned. But within a year of his admission, the patient had been seen by the most prominent surgeon of Frankfurt, Germany, but nothing had been suggested for his relief. However, since he had no pain or inconvenience in the joint, he reconciled himself to the deformity. But having met with a new accident upon the originally affected articulation, the latter again became inflamed, swelled, and tumefied, and this new increase of his trouble prevailed upon him to seek relief at this institution. On examination the biceps was found to be contracted, keeping the leg in an angular position. The slightest attempt at extension caused the most excruciating pains within the joint, which was hot, tender, and swollen, but movable and free from effusion. The pain, indeed, was so great as to prohibit locomotion, and even at rest and during the night a paroxysmatic pain would disturb him. Dr. Bauer, under whose service he entered as a private patient, remarked that there was a high degree of synovitis, most probably superinduced by a forcible extension of the contracted biceps, which, according to his experience, was not a rare occurrence. He said that whilst the fact was established beyond dispute, that inflammation of joints gave rise almost invariably to reflected contractions of certain muscles, the latter perpetuated their existence beyond the inflammation; and furthermore, although the fact had not been clearly enough demonstrated, that the excited irritation of the excito-motor nerves could be reflected upon the sensitive fibres, and that this reflexion would excite the same inflammation in the same joint from which the muscular contraction was originally started. These views might puzzle physiologists, who, as yet, had not succeeded in revealing by experiment this fact, yet he could adduce quite a number of instances which would bear out his observations. The patient himself stated that he was not fully cognizant of the modus of his recent accident; but since he did not notice any discoloration of the joint, or any other sign of a direct traumatic influence upon the joint, it was but reasonable to infer, the doctor remarked, that the injury had been an indirect one, and most probably consisted of nothing else but forcible extension. Whether the biceps muscle was the only contracted one, or whether the gastrocnemius and soleus were also implicated in the deformity, Dr. Bauer hesitated to decide; the division of the former would solve this doubt. As to treatment, the division of the biceps muscle was decided on and performed, and the extremity managed in the same way, as previously repeatedly mentioned. With this proceeding alone the patient was relieved instantaneously, rest secured, inflammatory symptoms gradually subsiding. There was not the slightest trace of reaction. At the end of a fortnight the patient commenced locomotion, the extension of the extremity being still maintained by a straight splint. Then it became evident that each attempt to put the heel to the ground met with resistance on the part of the gastrocnemius muscle, and with pain in the knee-joint. It was thereupon concluded to divide the Achilles tendon, which had the desired effect in amending the mechanical difficulty, and in render-

ing locomotion easy and comfortable. At the end of a month the patient was discharged, still supported by mechanical appliances, which he has since dispensed with entirely, and uses his extremity with almost the same facility as its fellow.

It need hardly be said that the nutrition of the member and its circumference have greatly improved.

American Medical Times.

SATURDAY, MARCH 30, 1861.

OFFICE OF CORONER.

It is well established, that promptness and certainty in the punishment of criminals are the most powerful safeguards which society has against the reckless commission of crime. When retributive justice overtakes the murderer while his hands still reek with the blood of his victim, the most salutary check is given to homicide. In the early history of all communities we find abundant examples of the sudden and permanent arrest of high crimes by the summary punishment which an excited populace has promptly inflicted upon the offenders. In older communities, where criminal jurisprudence is so administered as to be tardy in the arrest of criminals, doubtful in their conviction, and slow to inflict penalties, we see crimes of every grade gradually multiply. It follows, therefore, that that community is best protected against the commission of crime which has the most effective regulations for the apprehension and conviction of criminals.

But it will be apparent, that efficiency in the execution of any code of laws pre-supposes activity, vigilance, and intelligence on the part of those whose duty it is to enforce it: without these, laws had better never have been enacted, for they serve rather to embolden than check and deter the vicious.

One of the most important officers in the execution of our criminal laws is the Coroner; and it is to the duties of his office, and the manner in which they are now too often performed, that we wish to direct attention. English jurisprudence has bequeathed to us not only the form, but the spirit of the office of coroner. Originally, it was connected with the Pleas of the Crown, and was of the most honorable character. The Lord Chief Justice of England was the principal coroner in the Kingdom, and could exercise the duties in any part of the realm. The coroner was of equal authority with the sheriff in keeping the peace; he was to be a lawful and discreet knight; and was to receive no fees for his services. But his special duties were, by means of a jury, to make inquiry as to the cause of death where persons die suddenly, or are slain, or die in prison. He was directed to inquire "when the person was slain; whether it were in any house, field, bed, town, tavern, or company, and who were there. Likewise it is to be inquired, who were culpable, either of the act or of the force; and who were present, either men or women, of what age, if they can speak or have any discretion. And such as are found culpable by inquisition, shall be taken and delivered to the sheriff, and committed to jail."

It will thus be seen that the original duties of a coroner were most important in the prompt detection and arrest of criminals. As many of the duties, however, pertaining to the office were of an unpleasant character, such as examining dead bodies, gentlemen of rank subsequently shrank from their performance, and it gradually fell into disfavor. And when, at length, fees were added, it became the prize after which clamored the lowest grade of politicians.

Thus has fallen into unmerited disrepute, an office once honorably distinguished by its intimate association with the highest tribunals of justice. But notwithstanding this degradation of its character, and the inferior grade of incumbents consequent thereon, its functions have scarcely been changed.

In most of the States the office of Coroner exists, and the rules which govern it do not differ materially from those imposed by the English laws. These are loose and indefinite to a degree that renders the office almost nugatory when administered, as it now too often is, by incompetent men. The law which created the office of coroner and defined its duties centuries ago, still governs it in spirit.

Notwithstanding the immense increase of those subtle agencies by which crime may be clandestinely perpetrated, and the vast improvement of the methods of investigating the causes of death, as by the microscope, by chemical manipulation, and by accurate pathology, a coroner is still allowed to make as superficial an examination as he pleases, and render a verdict as to the cause of death in terms so indefinite, that it cannot be classified according to any modern system of nomenclature. Mr. Farr says (Registrar General's Report), "The causes of deaths, registered as the result of a solemn, judicial investigation, are the most unintelligible in the Register, as it is impossible to attach a specific idea to 'natural death,' to 'visitation of God,' and several other phrases in use in coroners' courts." We cannot, indeed, present a better illustration of the utter perversion of the true objects of this office than that drawn from actual experience, by Dr. HUNT, of Bellevue Hospital.* An arrogant, conceited official, ignorant not only of the first principles of law and medicine, but even of the English language, decides as to the cause of death where a capable medical attendant is in doubt. He refuses a post-mortem examination, probably considering it a reflection upon his intuitive knowledge of the cause of death, and instructs the jury, composed of some luckless employees lounging in the vicinity, as to the verdict that they must render. This must not be taken as an exceptional case; scenes like these are of every-day occurrence in our city. No one need be surprised that New York has gained an unenviable notoriety for its weekly deaths by violence, when the officer whose duty it is to take the initiatory step towards the arrest of criminals, exhibits such gross ignorance and imbecility.

How shall these things be remedied? Two methods are suggested. The first is, the abolition of the office, and the transfer of its duties to the magistrates' court, where these investigations would be conducted in a legal and orderly manner. It is contended by eminent medical and legal gentlemen that the interests of society would be equally subserved if this change were made. Many who have been obliged to attend much upon a coroner's court, and submit to the insufferable medical and legal pedantry of the pre-

siding genius, will be inclined to favor this method of reform.

The second proposition, and which is the most rational, is to remodel our laws relating to the office of coroner, and compel the selection of a competent person as its incumbent. The laws should define with exactness the various duties to be performed by the coroner, such as causing, in *all* cases, post-mortem examinations by competent persons, such investigations by experts as the present state of the medical sciences requires, to determine satisfactorily the causes of death.

But even this would fail of securing an enlightened and efficient medical jurisprudence, without qualified coroners. That this officer should, in general, be a medical man of education and experience, no one can doubt. It is true that not every physician is qualified for the office of coroner, but we hold that a medical education is a pre-requisite, which the law should establish.

We urge the medical profession to agitate the question of reform in our laws relating to coroners, and strive to secure that modification which will render this office one of the most efficient in the protection of society.

LUNACY COMMISSION.

AN ACT "To create the Office of Commissioner of Lunacy" is now pending in the Assembly, after having passed the Senate of this State. By the politeness of the Hon. Dr. MURPHY, who introduced the bill, we are enabled to present to our readers a synopsis of this important measure. Specially designed to facilitate the administration of justice, and guard both the innocent and the criminal insane against improper treatment when subject to legal restraint or prosecution, the proposed enactment appears to be admirably adapted to this particular object.

§ 1. Provides for the appointment of a competent physician as Commissioner of Lunacy.

§ 2. Whenever it shall be made to appear to a Supreme Court Judge of any district of this state, in open court or at chambers, that there are reasonable grounds for suspecting that any person held in custody in such district, under any criminal charge or indictment, for the commission of any offence punishable by imprisonment in the state prison, or death, is insane, it shall be the duty of such judge to make an order, to be entered in the minutes of the court, directing the Commissioner appointed by this act, to institute a careful examination into the mental condition of such person so held in custody as aforesaid, and to certify the result of such examination to the Judge aforesaid, and until such examination, no trial by jury shall be had against the person so held in custody as aforesaid.

§ 3. It shall be the duty of the Clerk of the Court in which such order is entered, to cause a certified copy thereof to be served upon the said Commissioner of Lunacy, who shall, immediately upon receiving such order, proceed to institute such examination, and for that purpose shall have power, and it shall be his duty personally to examine such person so held in custody as aforesaid, to hear the testimony that may be offered in the case, touching the question of insanity, and report to the Judge of the said district his proceedings and the testimony taken in the case, together with a written opinion respecting the mental condition of the person so examined.

§ 4. If it be the opinion of said Commissioner that such person so examined is not insane, he shall be brought to trial in the manner now prescribed by law; but if it be the opinion of said Commissioner that such person is insane, the Supreme Court Judge of said district, if satisfied upon the

* See letter on page 216 of this number.

question of such insanity, shall thereupon order such person, without further trial, to be removed to the state asylum for insane convicts, there to remain until further order of the Court.

§ 5. Makes it the duty of the Governor to direct the Commissioner to investigate and decide upon the question of the alleged insanity of any condemned prisoner who may apply to the Executive for pardon or commutation of sentence.

§ 6 Defines the Commissioner's duty in such cases.

§ 7. It shall be the duty of the Commissioner to visit, at least once in each year, all almshouses, poorhouses, lunatic asylums, and jails, within the State; to keep a record of such visits; to ascertain the number of insane inmates, the methods of treatment, the general condition and wants of such establishments, and to report the same to the Legislature.

§ 8, § 9, § 10, § 11. Relate to minor details of the appointment and service.

§ 12, § 13, § 14, § 15. Relate to rules to be observed in the commitment and care of the insane.

§ 16, § 17, § 18. Relates to the recording details, and to the release of inmates of Asylums.

§ 19. If the superintendent, officer, or any person employed in any institution for the reception and confinement of insane persons, shall in any way abuse or ill-treat any patient confined therein, or shall wilfully neglect any such patient, such person shall be deemed guilty of a misdemeanor, punishable as in hereafter provided.

§ 20. It shall be the duty of the superintendent, or persons in charge, of any institution in which insane persons are received or confined, to immediately, on demand, exhibit to the commissioner, at any time, all books, documents, and papers relating to said institution, or to any patient therein. * * *

§ 21, § 22. Define the Commissioner's powers in the discharge of patients, and state the penalty of violations of this Act.

That the medical profession, throughout the state, will heartily approve such a beneficent measure there can be no doubt; but it may reasonably be doubted whether any physician professionally competent for this commissioner-ship would rejoice in the appointment, for the labors it would impose are greater than any one man can fully and properly perform. The Commissioner must not only carefully inspect every almshouse, lunatic asylum, and jail, in the sixty counties of the State, at least once each year, but he must, as his chief concern, attend personally to every case of alleged unsoundness of mind in the thousands of criminals and persons accused of crime, in a state having a population of four millions, and a criminal calendar that is frightful in numbers and enormity. Whatever is done by the proposed Commission should be well done, and doubtless the time of the Commission will be mainly absorbed in its jurisprudential duties. The proper inspection and supervision of our almshouses and jails alone, would require the incessant labors of one commissioner, and with this service should be coupled the duty of thoroughly investigating the condition and numbers of the insane in all sections of the state. Accurate knowledge and statistics based upon such investigations would be of vast importance to the state, and of the greatest benefit to the unfortunate victims of insanity. Will the Assembly provide for this? Let the nineteenth Section be better defined, and let there be at least three Commissioners appointed.

THE WEEK.

THE Board of Managers of the Demilt Dispensary, in this city, at their last meeting passed the following Resolutions:

"1. *Resolved—That the Physicians of this institution be directed to treat all diseases, under the provisions of the By-Laws.*

"2. *Whereas hitherto our physicians have treated syphilitic and other venereal diseases whenever they have deemed the applicants worthy; therefore—*

"Resolved—That this Board are satisfied with the course hitherto pursued by our physicians in that respect."

It will be observed that this action of the Dispensary Board has reference to the mooted question of rejecting or admitting venereal diseases, in the otherwise unrestricted catalogue of maladies treated at our public Dispensaries. Recently we had occasion to notice a similar decision by the Trustees of the old Centre Street Dispensary, and we hope that the remaining three institutions of this class will soon take similar action, for in a great city like New York the interests of public economy, health, and morals, unite in affirming the importance of gratuitously curing the indigent victims of syphilitic disease. How much better that such persons be cured, instead of sinking into hopeless cachexia and pauperism, perhaps after first pawning their very garments by the demands of the heartless quacks who not only fail to cure their malady but encourage its causes. How much better that our Dispensaries thus welcome such miserable victims of vice, and while they freely offer the best medical treatment, kindly bid them "go and sin no more." We learn that a personal knowledge of many cases of innocent suffering among poor families afflicted with constitutional syphilis, the cost of treating such cases, and the vital importance of early and effectual treatment of the primary disease, induced these Dispensary Boards to take the action here noticed. What would the fastidious objectors to such enlightened charity and economy say if, as in Sweden, venereal maladies should so increase that the parish priests would be morally impelled to give notice from the pulpit, that, "owing to the extensive prevalence of syphilitic disease among the poorer members of the flock, the district physician will visit the chapel every week, on a stated day, and that all who need to be cured must come for advice and medicine!" Should we wait until the syphilitic disease becomes universal before we gratuitously relieve the indigent from its accursed poison? Clergymen and physicians together could not then eradicate the evil.

It was announced last week that a new medical school had been chartered in this city by the State Legislature, to be called the BELLEVUE HOSPITAL COLLEGE. Of the precise organization which the medical board of this hospital propose to effect, we are not informed, but in general terms we may state that the design is to make clinical instruction an essential feature of the course of study. It is intimated that the London schools will be taken as models; the term be lengthened to six months; the number of daily lectures be limited to four; the remainder of the day to be occupied with rigid and systematic bedside instruction for the advanced students, and practical anatomy for beginners. The permanence of this school is secured by the appointment of a Board of Trustees composed of prominent citizens, who will have its exclusive management. The building for the college will be erected upon the hospital grounds. The plan of this school will commend itself to the profession, and if carried out in a proper spirit, will inaugurate a new and more thorough system of medical instruction.

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We learn that DR. CLARKSON T. COLLINS, who founded

an Institution for the treatment of chronic diseases, at Great Barrington, Berkshire Co., Mass., has returned from Cuba, whither he had gone for his health, and is about to re-open this Establishment. DR. COLLINS was formerly a resident of this city, and was connected with several of our medical charities. He was the editor of the *New York Medical and Surgical Reporter*. He also was the first to propose a special hospital for the treatment of diseases of women, and indeed opened such an institution in 1847, at the corner of Second avenue and Fourth street. The institution at Great Barrington is the realization of DR. COLLINS's idea of a retreat for invalids affected with chronic diseases. The healthfulness of the locality cannot be surpassed, and in DR. COLLINS the profession have a guarantee of its excellent medical and general administration. The Institution will be re-opened on the first of April.

The following card appears in an evening paper of this city :

TO THE CITIZENS OF NEW YORK.—In consequence of the foul and slanderous conspiracy entered into to defame my character and ruin me in your estimation, I feel it to be my duty to appeal to those who have had ample opportunity of judging my character as a private citizen and as a medical practitioner, and to express their opinion of both. In reply to the Court article headed "Who is Doctor Tumblety?" in the *Express* of the 20th, Doctor T. is a well known and esteemed practitioner to the inhabitants of the different Canadian cities, Boston, Rochester, Buffalo, and other parts of the United States and British provinces, from whom he has received many testimonials as a mark of their respect ; and would be obliged by the *Express* publishing the inclosed, &c.

Here follows a list of some fifty respectable names, endorsing certificates of good character on the part of the Doctor, and his reputation as "being clever in the healing art."

This is the notorious quack against whom a coroner's jury, in Canada, found a verdict of manslaughter for causing death by the administration of his preparations. He fled to the United States, and has commenced his operations in this city. We find on referring to the *Montreal Medical Chronicle* of 1857, that this person has also been prosecuted as an abortionist.

Reviews.

1. ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF BALTIMORE. Baltimore, 1861. pp. 32.
2. REPORT OF THE BOARD OF HEALTH OF PHILADELPHIA, FOR 1860; SANITARY AND STATISTICAL. In accordance with an Act of the Legislature, approved March 8, 1860, for the Registration of Births, Marriages, and Deaths. Philadelphia, 1861. pp. 87.
3. ANNUAL REPORT OF THE CITY INSPECTOR OF THE CITY OF NEW YORK, FOR THE YEAR ENDING DEC. 31, 1860. New York, 1861. pp. 264.
4. ANNUAL REPORT OF THE HEALTH OFFICER OF BROOKLYN, FOR THE YEAR 1860. Brooklyn, 1861. pp. 64.
5. REPORT OF THE HEALTH PHYSICIAN OF THE CITY OF NEWARK, TOGETHER WITH REPORTS OF THE DISTRICT PHYSICIANS TO THE BOARD OF HEALTH. Newark, 1861. pp. 35.

CITIES afford peculiar opportunities for investigation of the laws of mortality and disease, and until an effectual system of Registration shall be enforced throughout the States, we must depend almost solely upon the Boards of Health in

our cities to supply the vital statistics which are so much needed in this country. In cities, also, the constant incentives of public necessity, and the combined interests of a dense population, tend to promote comprehensive hygienic inquiries, and encourage sanitary improvements. Hence it is that in those cities which have instituted efficient systems of sanitary government, the rate of mortality has steadily decreased, as in London, Berlin, Philadelphia, and Baltimore, where the chances of life, the immunity from disease and premature death, are nearly, or quite as great, as in the rural districts, notwithstanding the vast natural advantages of quiet rural life. We here present the leading facts that we find embodied in the Reports of the Boards of Health in several of our American cities.

The Baltimore Board of Health consists of *three physicians* appointed by the mayor of the city ; and, as might be expected, they make a Report that is creditable to sanitary science, and to the municipal government, which has thus provided for the practical applications of medical and sanitary knowledge. Remarkable economy and efficiency characterize the operations of this Sanitary Board. Though its members, DRs. KEMP, HOUEK, and GILMAN, modestly omit to speak of these virtues of their admirably conducted system, the results are such as should silence all objections against exclusively medical Boards of Health. \$51,109 83 paid all the expenses of this Board of Health last year, including the entire cost and supervision of street-cleaning, sewer-cleansing, and garbage-removal.

What would not the inhabitants of New York cheerfully give for such cleanliness and such sanitary supervision as the Monumental city enjoys! And it also appears that not a death occurred from small-pox in Baltimore during the year 1860, though the city used to be sadly affected with that malady. On page 17 of the Report we find a list of twenty-two physicians, and their doings as a Vaccine Department. By virtue of *twenty thousand two hundred and fifty-eight cases* from house to house, and *two thousand two hundred and seventy-seven official vaccinations*, was small-pox exorcised from Baltimore in a single year. A prouder monument that to JENNER than one of marble.

Dr. Kemp and his associates have also ventured to demonstrate some other important principles relating to the management of pestilential diseases. As physicians having confidence in medical facts, those gentlemen acting in their capacity as a Board of Health have assumed the responsibility of inaugurating a rational system of Quarantine. Fortunately that Board has the entire control of the quarantine regulations of Baltimore, and they have done good service for humanity as well as for commerce by boldly declaring their faith, and successfully applying their knowledge. From the time when the pestilence-stricken inhabitants of Norfolk fled northward for refuge, that enlightened Board has not failed to substantiate the fearless position then taken in favor of a more rational system of Quarantine. We rejoice to see that the Sanitary Board which in times of greatest peril tested the utility and safety of Quarantine reform, now endorses and calls upon their city to adopt the final Report and Code of the National Quarantine Convention.

An important section of the Report is devoted to sewerage, a matter which has manifestly been thoughtfully studied by the members of that Board. They properly estimate the importance of the Sanitary Engineering question connected with the subject of systematic sewerage. He justly represented the importance of controlling the emanations from sewers by means of stench-traps, etc. "The depreciated value of property along the line of the large sewers, is one indication of the effect of this trouble." This is an argument that will be more heeded than pestilence itself in any of our cities.

The "Report of the Board of Health of Philadelphia, for 1860," presents an instructive sketch of the operations of that Board since its institution last spring. This Board consists of twelve members, five of whom are physicians. Its executive officers, four in number, are appointed by the Governor of the State. Notwithstanding the disadvantage

of not having full control of its executive officers, this newly instituted Board is evidently destined to work out great sanitary improvements in the Quaker city. The first improvement is that of thorough and classified Registration of Births, Deaths, and Marriages. The second improvement, doubtless, will be witnessed in the extension of vaccination. Public Nuisances, Street-cleaning, Drainage and Sewerage, Water Supply, Improved Docks, the management and removal of Night Soil, etc., etc., are practically considered in this Report.

That this newly instituted Board of Health is economically managed, is evident from the fact, that its total cost, exclusive of quarantine and nuisances expenses, amounts to only about twelve thousand dollars for the entire year, and was less under the new than under the old regime. Unlike Baltimore, the city of Philadelphia does not confide to its Board of Health the duty of street and sewer cleansing. But great as the improvement of the sanitary system in Philadelphia is, under the new Health Act of last year, it manifestly would be much more economically and efficiently conducted if all the executive officers were appointed and governed by the Board of Health. Political patronage and partisan favors are in high esteem in Pennsylvania. Fortunately for Philadelphia, the Board of Health of that city can be, and now is, made up of competent men, who are appointed in such manner as to exclude partisan abuses. Though only a minority of that Board are physicians, the profession is represented by men of mark who will not fail to indoctrinate the entire body in the principles of Hygiene. With Prof. Paul B. Goddard as President, and Drs. La Roche, Jewell, Bond, and McCrea in the Council, the public health of Philadelphia will be wisely guarded.

(To be continued.)

Progress of Medical Science.

Uræmic Intoxication.—PROF. HAMMOND, of the University of Maryland, has a lengthy article on this subject in the *Am. Jour. of Med. Sciences* for Jan., in which he controverts the opinion of Frerichs, that uræmia is due to the conversion of urea into carb. of ammonia, and ascribes the poisoning to the direct action of the elements of the urine retained in the blood, upon the brain and nervous system; and among these elements, urea may be deemed the most poisonous. Frerichs performed two series of experiments upon which his theory is based: the first of which consisted in injecting into the veins of dogs, the kidneys of which had been previously removed, a solution containing from thirty-one to forty-six grains of urea. In a period varying from one and a quarter to eight hours, the animals became restless, vomiting and convulsions followed, ammonia was expelled with the expired air, and coma and death supervened; after which ammonia was found in the blood, stomach, bile, and other secretions. In the second series, a solution of carbonate of ammonia was injected into the circulation, the kidneys remaining intact; convulsions occurred immediately, followed by coma, the expired air meanwhile loaded with ammonia. As this ceased to be expired the animals slowly recovered. The author considers this no evidence that carbonate of ammonia was the cause of death, but on the contrary that ammonia may generally be detected in the respiration of healthy dogs, and is generally present in the blood of most animals, the truth of which he has satisfied himself by repeated observation and experiment. It is admitted that urea is a normal constituent of the blood in variable proportions, and it is only when the kidneys fail to eliminate in accordance to the requirements of the system, that the normal balance between the urea and blood is disturbed. In support of his views, the author cites three series of experiments, the first of which was the injection of urea into the blood of sound, healthy animals. Large dogs were fed for three days on

meat, during which time ammonia was constantly found in the breath, and urea in the blood. Upon injecting a solution of urea, symptoms of uræmia were soon apparent, of a severity in proportion to the amount injected. Upon a second examination of the blood, the urea had increased in quantity, while the ammonia remained about the same. "From the foregoing experiments it is perceived that there is a limit to the power of the system to eliminate urea, and that when this substance is introduced into the blood in large quantity, it causes death by uræmia." The second series of experiments had reference to the effects following ligation of the renal vessels, or removal of the kidneys. For this purpose large dogs were selected, urea found in the blood, and ammonia in the breath before the operation. After removing the kidneys, or ligating the renal arteries, the amount of urea was increased threefold in a short time, and there was no evidence of any of it being converted into carbonate of ammonia. The animals died in periods varying from forty-nine to two hundred and seventy-eight hours. Congestion and inflammation of important organs were produced, as after injection of urea into the blood, or during the course of Bright's disease. It was also seen that "so long as vomiting and purging continued, there was no accumulation of urea in the blood, and consequently no uræmic intoxication." In the third series, the kidneys were removed, and urea or urine injected into the blood, which induced death with all the symptoms of uræmia, in from eight to fifteen hours; and when urine was injected into the circulation, death occurred in a shorter time than when simple urea (though to a greater amount) was used in solution, whence it is inferred that urea is not the only poisonous element in urine. It might be added, as a brief summary of the author's conclusions, that injection of urea into the circulation causes disturbance in proportion to the amount injected, and the depurating abilities of the kidneys; that ligation of the renal arteries, or removal of the kidneys, will induce a condition of the system not distinguishable from the uræmic intoxication of Bright's disease, which condition may be somewhat retarded by the action of the skin, stomach, and intestines, or hastened, and life shortened by the injection of urea or urine into the circulation; that urine is more poisonous than a simple solution of urea, the effects of which strongly predispose to congestion and inflammation of the viscera, especially lungs, pericardium, and spleen, and derange the process of sanguification, so as to hasten the decomposition of the red corpuscles, or to interfere with the due removal from the blood of such as are broken down and effete; and "that there is no reason to suppose that, under the circumstances specified, urea undergoes conversion into carbonate of ammonia, but that, on the contrary, there is sufficient evidence to warrant the conclusion that no such process ensues. The fact that in the foregoing experiments a larger amount of urea was generally found in the blood taken from the body after death, than in that abstracted during life, is, of itself, conclusive against any such hypothesis."

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, March 20th, 1861.

DR. JAMES ANDERSON, PRESIDENT.

A NEW METHOD OF TREATING FRACTURES OF THE FEMUR.

DR. GURDON BUCK read a very interesting paper upon a new method of treatment for fracture of the femur. The long splint is entirely dispensed with, while constant and uninterrupted extension is kept up by means of a weight and pulley. The author makes no claim to originality for this method; it was suggested to him by observing its happy application by Dr. H. G. Davis, of this city, to the treatment of morbus coxarius.

The appliances to the limb itself for the purpose of making extension are the same as have been in use in our hospitals for several years past, and are as follow:—A roller bandage is commenced at the toes in the usual way, and continued to the ankles, where it is temporarily arrested. A band of adhesive plaster two and a half to three inches broad, and long enough to allow the middle of it to form a loop below the sole of the foot, and the ends to extend above the condyles of the femur, is then applied on either side, in immediate contact with the limb, from the ankle upwards. Over this the bandage is continued as high up as the plaster. A thin block of wood of the width of the plaster, and long enough to prevent pressure over the ankle, is inserted into the loop, and serves for the attachment of the extending cord, which is fastened to an elastic rubber band (such as is used for door springs), that passes round the block. By this arrangement *elasticity* is combined with the extension. The limb is now prepared to be put under extension. The arrangement for the pulley is very simple. A strip of inch board three inches wide is fastened upright to the foot of the bedstead, and perforated at the height of four or five inches above the level of the mattress. Through this hole the extending cord is to be passed, and on the further side of the strap a screw pulley should be inserted at the proper level over which the cord with the weight attached is to play. The footboard of the bedstead, if there is one, may be perforated at the proper level, and the screw pulley inserted in the further side of it, so as to answer equally well. To allow the application of lotions to the thigh, during the first few days of treatment, the ends of the adhesive bands should stop short at the condyles of the femur, and be turned down. They may afterwards be replaced upon the thigh and the bandages continued over them, preparatory to the application of the coaptation splints which should be added at this stage of the treatment. The coaptation splints, which may be of the ordinary sort, should be secured by those elastic bands, like suspender webbing fitted with buckles; these have the advantage of keeping up uniform concentric pressure as the limb diminishes from the subsidence of swelling. Counter-extension must be maintained by the usual perineum band lengthened out in the direction of the long axis of the body, and fastened to the head of the bedstead. India rubber tubing of three quarters of an inch calibre stuffed with a skein of cotton lamp wick makes an excellent perineum strap. A piece of two feet long with a ring fastened at each end answers this purpose admirably. A thin wedge-shaped hair cushion, to raise the heel above the mattress, and a bag filled with bran or sand to place on the outside of the foot to prevent rotation outwards, complete the appliances requisite to carry out this method of treatment. There need be no delay in its application. The sooner after the occurrence of the injury the limb is put up the better. The contraction of the muscles is thus antagonized from the outset, and the rough ends of the fragments are prevented from fretting the soft parts.

The author then gives twenty-one cases in detail where this treatment was employed; and the results, as shown by *actual measurement*, are equal to any that have hitherto been obtained. Dr. Buck claims for the apparatus the following advantages:—I. It maintains *uninterrupted* and *efficient extension* without producing intolerable pain, excoriations, sloughing, and tedious sores. II. It diminishes very materially the suffering of the patient and the irksomeness of long confinement to one position. There is no inconvenience attending the evacuation of the bowels. III. It is cheap and easy of application. IV. It is not liable to become deranged, thus rendering it unnecessary for as frequent visits on the part of the surgeon as when the ordinary apparatus is applied. The author considers it very necessary to apply coaptation splints, for reasons already given.

Dr. A. C. Post saw, with Dr. Buck, the first case to which this form of treatment was applied, and was entirely satisfied with the practical working of the apparatus. It seemed to

him to possess decided advantages over the other method previously used, in the way of affording greater comfort to the patient, better results, and less frequent visits on the part of the surgeon.

Dr. LIVINGSTON alluded to a case that for some time he had been treating by raising the foot of the bed, thus allowing the weight of the body to act as the counter-extending force, while extension was made over the foot of the bed by means of a pulley. Dr. Livingston had frequently felt the wants of *continuous elasticity* in extension, and had accordingly devised a spiral spring, which, attached to the screw on the foot-piece, seemed to answer a very good purpose. This modification of the ordinary straight apparatus was used exclusively in the Bellevue Hospital.

Dr. BATCHELDER had been in the habit for many years past of obtaining extension by elevating the foot of the bed and attaching the foot to an upright foot-piece. He was led thus to abandon the perineal strap, on account of the irritation which it frequently occasioned.

Dr. SAYRE stated that two years ago, he reported to the Academy a case of double compound fracture of the femur, treated by the use of extension in a patient of Bellevue Hospital. The extension was made over the foot of the bed by means of adhesive plaster, to which was attached a strip of india rubber. Counter-extension was effected by means of a twisted sheet passed over the chest, and under the arms of the patient, and attached to the head of the bed. Dr. Sayre believed that Dr. Swinburne of Albany was the first to bring the principle of treatment before the profession, and as that gentleman was present, he expressed a desire that the Academy should hear from him upon the subject.

Dr. SWINBURNE, of Albany, after expressing the gratification with which he listened to the paper, gave a somewhat detailed account of the plan of treatment as adopted by him in the treatment of these fractures, which consists in simple fixed extension and counter-extension, *without splints*. Dr. S. uses merely a perineal counter-extending band attached to the head of the bed, while extension is made at the foot by means of the adhesive plaster forming a loop at the sole, which is attached to the foot of the bedstead by means of strong cord. He is accustomed to treat fractures of all the other long bones upon the same principle (see p. 143). He stated that he had treated over forty cases of fracture of the femur by this method, but in no instance had he the misfortune to get more than half an inch of shortening. In the treatment advised by Dr. Buck, the principle involved, viz. extension, was the same, only different means were used to carry it out.

Dr. BUCK stated that he could not claim for the method which he advocated the same good results as Dr. Swinburne, by simple fixed extension and counter-extension. I think, said Dr. B., that the great error in determining the amount of shortening is owing to the want of a proper comparison of the two limbs by actual measurement. If the ankles are simply brought together, the injured limb may appear to be the same length as the other, when in reality, as is often proved by measurement, it is not. Since the use of adhesive plaster for making extension, the number of cases cured without shortening has been very much increased; and I think, by the method that I have introduced, that number will be still more augmented. I have a case now under treatment for the last four weeks, where the shortening is one inch, and I am afraid that the limb cannot be brought down any further. After the limb has fully regained its strength, that amount of shortening will not be very perceptible; in fact, I remember the instance of a seaman who had a shortening of more than an inch, and who, at the end of a year after the injury, stated that he knew of no difference between the two limbs, as far as ease in walking was concerned.

Dr. WATSON was satisfied that the method proposed by Dr. Buck was a very good one. The employment of elasticity was very useful in allowing a certain degree of motion, at the same time the fragments were not displaced. Dr. W. was satisfied that the principle of treatment was as

old as the "fracture bed;" but he considered that Dr. Buck had made a great improvement upon the old plan. "After all," he remarked, "the mere apparatus is nothing; a good surgeon can make a good limb with almost any kind of apparatus. It is the adaptation of a principle, and not a splint!"

Dr. HOLCOMB stated that he was much struck with the peculiar notions of the European surgeons in the treatment of fractures of the femur. Each recommended a practice that was peculiar to himself, for no other reason, seemingly, than to be different from his neighbor. He thought that there was altogether too much stress laid upon the adaptation of a buckle, a strap, or a screw in the modification of an apparatus, while the fundamental principle of treatment was wholly lost sight of. In conclusion, he referred to the gypsum bandage, which was used with very good results in Europe, for the treatment of this particular kind of fracture.

Dr. BRONSON referred to a case of fractured thigh treated by the elastic perineal band and pulley, where a shortening of fully two and a half inches resulted.

Dr. RAPHAEL thought that the surgeon who resurrectionized old principles of practice, and proved them by the force of his own reasoning to be correct, deserved as much credit for originality as the one who first suggested them. Dr. R. stated that he had seen a good many fractures of the thigh treated, but none of them could compare in their results with those where Dr. Buck's apparatus was applied.

Dr. POST remarked that the principle of simple extension advocated by Dr. Swinburne was not in his opinion adapted to the fractures of the forearm and leg, where two bones were arranged parallel with each other. In those instances the displacement was in a lateral direction, and required only lateral support to maintain the parts in position.

Dr. BUCK had always found that in fractures of the thigh where the shortening was very considerable, and the limb was brought down to the normal length by simple inelastic extension and counter-extension, the pain occasioned by the apparatus could not be borne for any considerable length of time. If, however, notwithstanding the protestations of the patient, the treatment should be persisted in, excoriation and sloughing of the perineum would be the result. In consideration of these facts it was difficult for him to understand why Dr. Swinburne escaped this accident so frequently.

Dr. SWINBURNE replied that he was in the habit of using a large, full, and soft perineal pad, two inches in diameter, which distributed the pressure over a comparatively large space.

Correspondence.

A NEW YORK CORONER.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I place at your disposal the following notes of a case, which is only one of several, of a like character, that came under my observation while I was house surgeon at Bellevue Hospital, and which shows the loose manner in which a Coroner of the City of New York does business for the public. I do not believe that the Coroners *always*, or as a *rule*, pursue their investigations as to the cause of death in an unsatisfactory manner; but I believe there ought to be no exceptions to the rule. And I may add, that all the cases that have come under my notice, in which the investigations have seemed to me to be improperly conducted, have been by the same coroner.

A man was brought to the Hospital in a comatose condition, and placed under my care. I was told that it was *supposed* he had received injuries at the hands of some party or parties unknown. No fractures, contusions, or wounds, were found on his head, or any part of his body; his breath had the odor of alcohol, but it was

impossible to determine whether his condition was due to liquor, or to the effect of a poison. The usual treatment in such cases was pursued, but with no favorable results, and the patient died a few hours after admission. Notice was sent to the office of the coroner, and the following day one of them attended at the hospital, and requested my testimony. I gave the history of the case, from the time the patient entered, until he died; but declined giving an opinion as to the cause of death, simply because I was ignorant of it. The coroner insisted, however, that I had some opinion as to the cause of death, and insisted upon an answer as to that most probable. I replied that I could specify no particular cause. He enlightened me on the subject, by stating that *he knew* that the man died from compression of the brain. I could not say that he was wrong, for the death occurred as in compression; but the symptoms were not different from those produced by other causes, and as I had failed to discover any contusions, fractures, or wounds upon his head, I could not affirm that such was the cause of death, notwithstanding the high authority of the coroner. He would not consent to a post-mortem examination. I consented to give the following testimony:—"In my opinion, deceased came to his death from the effects of compression of the brain, or apoplexy, or of some poison to me unknown." This statement apparently satisfied the coroner. The jury was composed of the lowest class of laborers, two of them employes about the Institution, with four others brought in from the street, of like mental calibre. These persons, with the coroner, made up the tribunal to investigate the cause of death; and if a crime had been committed, to discover the perpetrator. None of the witnesses in the case were present, except myself. The jury were sworn, I presume, though I do not remember to have seen the oath administered; I do not believe, however, that there was a man among them who could have told, had he been asked, the nature of an oath. The testimony of three or four witnesses was read to them, which, taken together, was about as lucid as that part of my own relating to the cause of death.

The coroner then charged the jury that they should find a verdict as follows: "That the deceased came to his death at the hands of some person, or persons, unknown to this jury;" the jury were then requested to put their names to the verdict. At this stage of the proceeding, one of the jurors turned to me, and asked "what is all this about?" Before I could explain to him his position, he was called upon to make his mark, which, with the exception of two, they all did. That ended the case, as I supposed, and the jury retired; the whole farce having lasted about ten minutes. I asked the coroner (now that it had been satisfactorily ascertained that the man was murdered), if the murderer should be discovered, would the evidence that had been produced be sufficient to commit him: to which he replied, "Oh, Doctor, he will not be found." "Still," I suggested, "it is your duty to try to find him; to use all the means that by law is placed in your power to discover him." To which he replied, "No, Doctor, such cases never turn up."

I then requested permission to examine the body for *my own gratification*, to which he consented. On removing the scalp, I found a small contusion with very little extravasation of blood, just over the junction of the left parietal with the temporal bone, and both bones at that point fractured, or fissured without depression. On removing the calvarium, a large clot was found, between the dura mater and skull, almost covering the left hemisphere of the cerebrum. No other injury or disease was found in any part of the body.

Some hours after, I was called upon by an agent of the Coroner's, requesting me to revise my testimony, given in the morning, and add the post-mortem appearances. I accordingly made the statement desired, though how it was to be used after the verdict had been rendered did not appear. Whether any further effort was made to discover the perpetrator of the crime, I did not learn.

In this case, I do not know but all the forms of the law were gone through with, and every *requirement* answered. I presume that such was the case, disgusting in its manner though it was, to any one of ordinary intelligence. *Such* a proceeding, *such* a jury, and last but not least, *such* a coroner, ought to be humiliating to an intelligent public.

J. W. HUNT, M.D.

PROFESSOR GARDNER'S UTERINE ELEVATOR—CLAIMS FOR ORIGINALITY AND PRIORITY IN INVENTION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

On the 198th page of the American Edition of *Tyler Smith's Lectures on Obstetrics*, published in 1858, there may be found a cut, which I there introduced, representing an instrument originated by me some time before, and manufactured by Tiemann & Co., of this city. I send you with this a cut of this same instrument, very slightly altered in immaterial points, such as in the form of the handle, as it appears in my translation of *Scanzoni's Diseases of the Sexual Organs*, which will be published next week. An examination will show plainly that this is the original of the almost fac-simile instrument, a cut of which appeared in the *MEDICAL TIMES* a few weeks since. In many particulars it will be conceded that the instrument made and claimed by your correspondent, Dr. H. W. JONES, of Chicago, is without a single superiority inferior to the original; viz. that the axis of the instrument, when in position, is half an inch and more below the os uteri; it is more clumsy, heavier, of less power, more liable to rust and get out of order, because it cannot be properly cleaned; is not so firm, has a point in reversing the motion of the screw from one direction to the other, where almost a half revolution of the screw does not in the least affect the motion of the extremity, and finally is very much more expensive from unnecessary complication in the construction.

This instrument, as originated by me, is not designed for a single purpose. Although eminently capable of elevating a flexed or versed uterus into its normal position, by means of the stem introduced into its cavity, it will also effect this end by means of a loop (which may be inserted after the stem is removed from its socket), which may be passed over the cervix uteri, when abnormally thrown into the cavity of the sacrum, and drawing it forward the inverted organ is necessarily restored to its proper position. A knife may be substituted for the stem and which may be easily manipulated, the instrument being light and the blade capable of being turned in any direction. Finally, its use, as enlarged upon in *Tyler Smith*, as a valuable assistant, with a spatula attached, in drawing down the uterus in cases of abortion, and of removing the small placenta, often so difficult to do, or intra-uterine polypi, entitle it, I think, to be properly called a manifold instrument, as I at first designated.

These statements, were they not in print two years ago, could be corroborated by Messrs. Tiemann & Co., and espe-

cially by Mr. Stollman, as also by Dr. J. S. Edwards, a well known gynecologist, who I learn used the instrument shortly after its perfection, as a uterine replacer.

I am aware that I am occupying valuable space about a small matter, but as Touchstone says of Audrey, "it is a poor thing, but mine own."

Truly yours,
 AUGUSTUS K. GARDNER, M.D.
 NEW YORK, 141 East Thirteenth street. }
 March 18, 1861. }

DENGUE IN MISSISSIPPI.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—A very interesting account of "a singular epidemic in Virginia," is given in No. VII. of your Journal, by Dr. Lemmon.

That gentleman diffidently regards the disease as a modified form of Dengue, and it may be that he has correctly diagnosed it, but there are so many points of difference between it and Dengue as described by Drs. Wood and Dickson, and with that disease, as it has come under my own observation, that I am induced to offer a brief statement of the most prominent features of the epidemic which prevailed here during the summer of 1860.

Dengue appeared in Port Gibson, early in September, and continued to prevail until the approach of cool, frosty weather, in the latter part of the month of October. More than one third of the whole population were attacked by it, yet in no case did it prove fatal. It was a fever of but one paroxysm, lasting from twelve hours to three days; no decided remission was observable, and quinine was of no use in its treatment. Relapses were occasional. No age was spared, the infant and the octogenarian seeming to suffer alike.

A marked feature in this disease is the peculiarly soft and hesitating pulse, which ranges from 90 to 130 beats per minute; and, in connexion with this, may be noticed a decided sluggishness in the capillary circulation, which, though perceptible from the very start, is most marked after the fever declines: then, the dull, heavy, bloodshot eye, the purple, almost livid face, enable one to see at a glance, without knowledge of previous history, that the patient has had Dengue. As results of this stagnation we have, not unfrequently, hemorrhage from the mucous membranes; cutaneous eruptions on the fifth or sixth day, of the petechial, scarlatinous, rubelous, eczematous, or impetiginous form, were observed in perhaps one fourth the persons attacked; morbid sensations, such as intense itching and burning, and the feeling of chilblains in the hands and feet were very common.

Convulsions occasionally occurred in children, and in one case, I observed them in an adult. Convalescence in nearly all instances was very slow; great debility, loss of appetite with constipated bowels, and wandering rheumatic pains, continued usually a week or two.

The prognosis in uncomplicated Dengue may always be pronounced favorable, but the sequelæ are often unpleasant, and sometimes serious. The cervical, axillary, and inguinal glands in many instances became inflamed, and in five of my cases suppuration ensued. Although the joints were the seat of severe pain, I saw but one case in which there was any evidence whatever of inflammation; in this instance, the patient had an ordinary attack of Dengue, was convalescent and resumed business at the end of a week, but the pains, which had been felt in all the joints, now confined themselves to the right elbow and hip; to all appearances it was an attack of acute inflammatory rheumatism, but suppuration occurred in the tissues around both the affected joints, and there was no evidence of any cardiac lesion.

The subsequent history of several of my cases has been such as to lead me to believe that tubercular deposit is to be considered a sequel of Dengue, as it is of typhoid fever. I cannot offer this as a fact, but simply state my belief that farther and more accurate observation will show that the

system is left by this disease in a state which predisposes to tuberculosis. In the epidemic mentioned by Dr. Lemmon, bronchitis was a usual concomitant; in the one to which I refer, although there frequently was cough, and it sometimes was very troublesome, there were no signs of bronchitis, either by expectoration or physical exploration. In three cases there certainly was tubercular deposit, in two others it probably took place.

1. A negro, about thirty-five years old, who previously had enjoyed good health, suffered with Dengue, harassing cough, this continued after the disease disappeared, and in about five weeks he had hæmoptysis with signs of localized bronchitis, at the right apex.

2. A gentleman of twenty-nine years, carrying the marks of strumous disease in early life, was similarly affected; he had pain in the chest, light fevers in the evening, cough, two slight hemorrhages. No physical signs of tubercles discernible.

3. A man æt. thirty-two, carpenter by trade, no hereditary right to phthisis traceable, presented two months after Dengue, signs of softening tubercles at both apices. Early in August he had intermittent fever, which prostrated him very much; early in Sept. he had Dengue; glands in right axilla suppurated. Early in December he died, presenting unmistakable evidence of tubercular deposit in both lungs and in the peritoneum; in this case a blind internal fistula in ano was discovered several weeks before death. No autopsy was had.

In all these the evidence of tubercles was presented several weeks after the attack of Dengue, but in case 4, a laboring man of powerful frame, hemorrhage of the lungs recurred about the time the fever left him. There was no cardiac disease here, and I could attribute the hæmoptysis to no other cause than that which gives rise to hemorrhage from the mucous membranes elsewhere in Dengue, viz.: to a passive congestion of the capillaries; this man was very susceptible to the influence of cold, and frequently had light hacking cough.

The behavior of my 5th case was such as to leave no proof, but only a strong suspicion of slight deposit; a fortnight after Dengue there appeared obstinate and harassing cough, with excited circulation towards evening; this continued six weeks.

During the epidemic, not less than four hundred cases occurred; the disease ran its course in about one-fourth the time covered by the cases which Dr. Lemmon describes, in no instance was jaundice a concomitant, nor were the functions of the liver disturbed in any way that I saw or heard.

The treatment was almost nothing; a mild aperient at first, and afterwards opium for the relief of pain.

R. B. MAURY, M.D.

PORT GIBSON, MISS., March 4, 1861.

SOLIDIFIED GLYCERINE OR PLASMA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—An article, by V. Graefe, appeared in the *Archives for Ophthalmology* for 1860 (Bd. vi. lib. 11), on the composition and value in ophthalmic practice of Solidified Glycerine, or Glycerine Salve, in which it was stated that this had been first successfully made by Simon, and that the secret of his success consisted in the employment of a perfectly pure article of Glycerine. A communication had already been made to the London Pharmaceutical Society, by G. F. Schacht, in January, 1858, on a similar method of solidifying this substance (see *Jour. and Trans. Phar. Soc.*, Vol. 17, No. VIII.), and the importance of its purity pointed out. The compound was called by Schacht, Amylo-Glycerine, or "Plasma;" his communication re-appeared in the *Journal of the Maryland College of Pharmacy*, for June, 1858. The Plasma was afterwards introduced to the Pharmaceutical Society of Philadelphia, and for some time was

advertised and sold extensively in that city. But little has been known of it in New York as yet; and as the short experience I have had with it entirely agrees with the very favorable opinion of Dr. V. Graefe, I feel that no apology is necessary in laying its formula before the readers of the *MEDICAL TIMES*. The proportions used by Schacht were:—Pure Glycerine, one ounce, pure Starch, seventy grains; by Simon, pure Glycerine, five parts, pure Starch, one part. The mixture is to be gradually raised to about 240° of heat in a porcelain vessel, constantly stirred, and immediately when it begins to thicken taken from the fire, and the stirring continued till it is equally stiff throughout.

The salve thus formed is beautifully transparent, of the consistence of cold cream, unaffected by changes in temperature, and soluble in water. Besides the valuable therapeutic properties of the Glycerine, it has many advantages as a vehicle for topical applications, over the ointments ordinarily used, particularly in its more powerful solvent qualities, and in its more permanent character. When chemical changes do occur in it, the resulting new compounds, unlike those in fats, are entirely unirritating.

J. E. MACDONALD, M.D.,

Eye Surgeon to Demilt Disp.

Medical News.

DR. HINGSTON, of Montreal, recently recovered \$600 from the corporation of that city for a fracture of his clavicle, received in a fall from his horse, owing to a defective bridge. This sum he has generously appropriated as follows: \$50 to the Natural History Society; \$50 to the Mechanics' Institute; and the balance to the establishment of a Free Hospital for Children.

The British Medical Journal (Montreal) says: "We are not aware that either Ether, or any of its compounds with Chloroform, have been ever used in this city for anæsthetic purposes."

The quarantine at Grosse Island, Canada, has been discontinued. It has cost annually £8000, and has never prevented the spread of contagious diseases.

SIR BENJAMIN BRODIE is about to retire from professional life.

MORTALITY OF MONTREAL.—The rate of mortality of Montreal, in 1860, was 1 in 32 of its inhabitants; this is a reduction of 25 per cent. in fourteen years; the death-rate being, in 1846, 1 to every 23.60. During that period the population of the city has doubled—thus proving, contrary to our City Inspector, that a city may improve in health, though its population rapidly increases.

MEDICAL DEPARTMENT OF THE SOUTHERN ARMY.—The annual salary of the Surgeon-General is three thousand dollars, with fuel and quarters; monthly pay of Surgeons of ten years' service in that grade, two hundred dollars. A surgeon of less time service, one hundred and sixty-two dollars. Assistant-Surgeon of ten years' service, one hundred and fifty dollars. Assistant-Surgeon of five years' service, one hundred and thirty dollars; and four assistants of less than five years' service, one hundred and ten dollars.

MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA.—The annual commencement took place on Friday, the 8th inst. The class in attendance on the lectures now terminated amounted to two hundred and twenty-two students. The number of candidates for the degree of Doctor of Medicine, who passed a satisfactory examination, is ninety-three. A committee, consisting of Drs. R. A. Kinlock, F. Peyre Porcher, and William Horibeck, awarded the prize to Samuel Selden, M.D., of Norfolk, Va., the author of the Thesis on Eclampsia. First in the list of students who passed a meritorious examination, we notice the name of H. BAER, of Charleston, S. C.

Original Lectures.

LECTURES ON DIPHTHERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE II. PART I.

Fibrous thickening of the lips of the glottis producing death, a case.—Death by convulsions.—An induced hemorrhagic diathesis usually mortal.—Paralytic affections following diphtheria.—Diphtheria postponed by scarlet fever and measles, a case.—Eruption of scarlet fever modified by concurrent diphtheria.—Intercurrent diphtheria not uncommon, usually occurring as the eruption begins to subside.—Concurrence of measles and diphtheria.—Diphtheria and small-pox.—(Note—Diphtheritic ophthalmia.)

GENTLEMEN:—At the close of the hour when we last met, you will remember I was reciting some of the constitutional effects of the diphtheritic virus. It is my wish, as far as possible, to teach by examples; and as these constitutional effects are various, showing themselves as well after as during the membranous stage, I will give succinct narrations of still other cases; wishing you to regard each case as the type of a group, excepting only the first case which I give you to-day. That case will interest you, illustrating as it does, several important points in the natural history of our disease; but it would interest you still more if I were at liberty to refer to its social relations.

This larynx and portion of the trachea, with the tonsils, will show you a very marked thickening, particularly about the lips of the glottis. It is a thickening that resists the influence of alcohol, and therefore is not oedematous. I emphasize this point because, in the history of the case as I shall give it you directly, you might infer that oedema glottidis was the most natural condition to look for; but it is not so, it is a firm unyielding tissue at the upper part and opening of the larynx. A girl, two years old, not large for her age but usually healthy and vigorous, began to suffer with pretty high fever and sore throat. Membranous patches soon appeared on the tonsils, and the external glands of the neck were considerably swollen. On the fifth day of this disease a pretty bright efflorescence or scarlet fever eruption appeared, being first noticed in the morning, covering the whole body from head to foot; it lasted four days, and disappeared with obvious desquamation. The sore throat was not materially increased during the eruption, and the general symptoms were but moderately aggravated. The membranous disease continued through the eruption, and for two days after. Then the membrane exfoliated, and for two or three days more the throat and general symptoms gave promise of speedy recovery. But after this, one of the tonsils began to swell anew, and the glands of the neck on that side to increase and grow hard. In two or three days more, surgeons who were called in consultation thought they were authorized to open the external swelling to evacuate pus. It was opened, but very little pus was found. The difficulty of breathing, which had been gradually increasing for a day or two previous to this operation, soon became urgent. Search was made for a new deposit of false membrane in the fauces, but it could not be made out, though one of the surgeons thought he saw enough to authorize the opinion that it had been reproduced. The question of tracheotomy was raised by myself, and on consultation with three of the most distinguished surgeons of the city, it was declared inexpedient. The child died of apnoea; and a post-mortem showed that there was no reproduction of false membrane, but that the inflammatory non-oedematous thickening at the opening of the larynx

had so narrowed the passage for the breath as to destroy by asphyxia. Tracheotomy in such a case might possibly have prolonged life till this tumefaction could have subsided, and the breathing could have been performed by the natural passages. But the case, so far as I know, is without a precedent in the history of diphtheria, and its nature could not have been understood previous to an autopsy.

The next case which I propose to recite may represent a small proportion of the fatal cases of diphtheria. Dr. Jas. R. Wood had several cases of scarlet fever in the family of one of my neighbors. In two of the cases there was diphtheritic disease complicating the fever. One of these did very well, except that the scarlet fever left deafness; another getting through the scarlet fever had the membranous disease in the throat; and that subsided, at least the membrane disappeared about the usual time. The little one was regarded as convalescent; still she was feeble, and kept her bed most of the day. Dr. Wood being out of town, I, having seen the child with him, was sent for one afternoon, and found that after a fortnight of apparent convalescence, she was seized suddenly about two o'clock that afternoon with convulsions. These convulsions continued to occur and recur until two the following morning, when the little one died. Here then is death by convulsions during what appears to be convalescence.

There is another source of danger, not exactly after the exudative period, but in its latter stages; it is *hemorrhage*. For example: Dr. Husted had a young man, his patient, seventeen years old, whose mouth, nose, and throat were the seat of diphtheritic exudation. Just about the time when portions of the membrane would have been likely to have exfoliated, there occurred a hemorrhage from the nose, mouth, fauces, and gums. This he succeeded in stopping by the use of the sesquisulphate of iron. Two days after this bleeding was renewed, the same agent would not control it nor indeed any other, and he died in a few hours. Dr. Buck's case, as published in the *American Medical Times* (Aug. 4, 1860), is an interesting one in this relation. He saw it at Paterson, N. J. A young man about fourteen years of age was attacked with diphtheria; the symptoms were not alarming from Wednesday until Saturday. On Sunday he had nose-bleed, and this was repeated several times. It does not appear that it was extreme and excessive, but it excited anxiety, and seemed to be an indication of the grave nature of the disease. This young man died not from the direct effects of the bleeding, but some *days* after, in a comatose condition. I cite these two cases to illustrate a principle which seems to have been settled ever since the time of the Spanish epidemics. For Villa Real, a Spanish author, writing of the Spanish epidemic which prevailed in the years preceeding 1600, says: "I have very often observed that hemorrhage from the nose and mouth in this disease is fatal; indeed, I have seen no one survive in whom this hemorrhage from the nose or mouth has occurred." I do not know that we are compelled to take quite so gloomy a view of this feature of the disease, but certainly it is one of the gravest of symptoms.

Thus, then, you see, gentlemen, danger surrounds the little ones that are seized with this disease, on every side. It is not enough that there is imminent danger to the lives of these interesting ones during the continuance of the exudation; but after the membrane has separated, the poison sometimes still continues to work on the system, and produce effects which, as I said before, last for months, and occasionally for a year or two. We have not done with the characteristics of diphtheria, for there are sequences even later than those I have yet referred to. These, however, are in great part paralysis in some form or another. You will, perhaps, remember, some of you, to have seen in this room, during the last summer, a child about six or eight years old, that was brought here for a diagnosis. She had had diphtheria, and four weeks had elapsed since all danger from that disease was supposed to have passed. When she was here, there was manifest a certain degree of stupidity in her manner; one of the eyes was turned inwards towards

the nose; there was a very marked weakness of the whole of one side. The symptoms led me to suspect the existence of acute hydrocephalus. But in a little time it appeared that there was no danger from hydrocephalus, but that this was a paralytic affection, which was the result of the diphtheritic poison. In two or three months of tonic treatment this paralysis all disappeared; the sight became straight, recovering its usual force. This strabismus was in all probability the consequence of paralysis of the external rectus, the other muscles retaining their force would displace the eye from its proper axis.

Paralysis of the fauces is a common occurrence following after this disease, lasting for two or three months, and causing a considerable alteration in the tone of the voice, and difficulty in swallowing. This alteration in the voice is the consequence of one of two things—either a swelling of the tonsils, which remains after the membranous affection has ceased, or of a paralysis of the muscles of the throat, which may either remain over or occur after the active symptoms have gone. The paralysis of the velum is usually attended by insensibility in the part, so that it may be pinched or pricked without producing pain. Regurgitation of the food through the nose with cough is a common occurrence with this paralysis. It occurs oftenest in the attempt to swallow fluids. It was noticed by Dr. Samuel Bard (*Am. Philos. Trans.*, vol. i. p. 388).

Again, *paralysis* in a variety of ways shows itself in different parts of the body. As an illustration of this, the *eye* is sometimes affected in other ways than by the production of strabismus. A patient of Dr. Henschell, a boy who had had diphtheria, was so far recovered as to be actually sent away to school. As he attempted to study, it was ascertained that he could not see. The teacher, taking the alarm from this circumstance (the boy at the same time looking pale and feeble), sent him home again. When he came to be examined carefully, it was ascertained that he could see distant objects tolerably well; but it was the things in the room that he could not distinguish satisfactorily; as to print, there was none so large that he could read. The question arose, Is this an amaurosis, or is it the result of paralysis in the muscular apparatus that adjusts the eye to distances? I call your attention particularly to this point, for you will see, when you read Greenhow's book, that there is a doubt on his mind whether this affection is a true amaurosis or muscular paralysis. There was but one way to decide this point. We obtained some spectacles of varying focal distances, and found that those of moderate convexity enabled him to see considerably better; but the very oldest glasses were those by which he could see and read the very finest print. It was plain from this circumstance that the eye was sound, and that it had not the power to adjust itself to nearer objects. Another case of the same sort occurred a short time afterwards. It was tested in the same way; there was no amaurosis. In this the paralysis of the muscles did not come on until the fifth and sixth weeks of the convalescence. In both instances entire relief was obtained in one or two months by the use of tonic medicines. Actual but temporary amaurosis is said to have occurred under similar circumstances. Eyes so affected have been examined by the ophthalmoscope, and nothing unnatural has been discovered. I have no difficulty in admitting the possibility of such a lesion; but I cannot yet learn that any of our ophthalmic surgeons have seen it here; and as our cases of supposed amaurosis have been resolved into muscular paralysis, it is right to submit the question to further investigation.

Dr. Herpin's case is a curious instance of paralysis affecting large portions of the body. A fortnight after incomplete recovery he had "pain in the wrists; confusion of sight; constriction of the throat; paralysis of the palatine vault, which had become completely insensible; regurgitation of food by the nostrils. Rather later, there was a sensation of tingling in the great toe, ascending as high as the knees. I walked," he says, "with great difficulty, and very slowly,

and my weakness was especially painful when I went up stairs, and this state continued without improvement for six weeks. The same tingling had reached my hands and fingers, and I had complete loss of all tactile power." He took the disease in the spring of 1843. "On the 10th of August I took sea baths, and at the second bath I was entirely cured of all my complaints." In one of Bretonneau's patients, such insensibility of the lower extremities occurred while the muscular force remained; that though he felt well, and could walk, he had to look to the ground to ascertain that his feet were securely planted. He felt as if he was walking in the air. Salt-water baths, as salt as sea water, appeared to be beneficial. This state existed three months after convalescence. (*Memoirs*, p. 203.) Trousseau has reported a case of exceeding interest, in one view:—The paralysis that affected the muscles of the legs and arms seemed to be complete at times, and then it would change from one side to the other in a single day, and go back again. The importance of this fact is to be seen in the inference that must be drawn from it, that the paralysis does not depend upon any permanent change in the nerve tissue anywhere, either in the nervous centres or in the nerves themselves; that it is a functional disease the nature of which is not understood. In almost all these instances of paralysis, after one to three months, recovery takes place pretty rapidly, under the influence of fresh air, sea bathing, or salt-water bathing, and tonic medicines. These cases will serve, then, to illustrate the various modes in which this formidable disease affects the system, before, and at the time of the occurrence of the membrane, and for months afterwards. You may regard Dr. Herpin's as a type-case, not in the time at which the paralysis occurred, but in the order in which it attacked the different parts of the body. As a rule, you may expect paralysis and insensibility of the hanging palate first, with nasal voice, and in some, regurgitation of fluids by the nostrils; then, some time after, tingling in the toes, feet, and legs, followed by motor and sensory paralysis, one or both, more or less complete. Then, still later, the tingling in the hands, followed by loss of the tactile sense, or of motor power, or both. Generally it has proceeded no further; but instances are recorded in which it was believed that the respiratory muscles had become paralysed, and even the heart. However this may be, it is pleasant to know that almost all of these paralytic sequelae are remediable, whether of sensation alone, as in Bretonneau's case; or of the muscles of the throat; or of those of the eye; paraplegia or hemiplegia; of whatever part, for it is difficult to say what portion of the body is exempt from this infirmity. Almost all the cases that have not had a favorable issue have been made fatal by the force of some intercurrent disease. There is no common mode of death, as in affections naturally fatal, except in the rare and doubtful cases in which it has been supposed that paralysis had seized on the heart or the respiratory muscles. You may be led to infer from these remarks, that the paralytic affections are to be looked for in a large proportion of the cases of diphtheria. The muscular paralysis of the fauces with or without loss of sensation in the hanging palate, is, as has been said, a common occurrence. But in other parts of the body I do not think you will find it oftener than in one out of twenty cases, or more, of the membranous affection. I cannot tell you how often, in those who suffer in this way, you should look for loss of sensibility alone; or for muscular paralysis alone; or for the two combined; nor how often the paralysis will be paraplegia; or hemiplegia; or only affect single muscles, as the external rectus of the eye (producing strabismus); or sets of muscles belonging to one part, as when an arm is alone paralysed, or the vision is impaired. But in an extensive epidemic of diphtheria you may expect to see, from time to time, all these, and occasionally general paralysis. This subject has been well written up by our townsman, Dr. James B. Reynolds. You may find his interesting paper in the *New York Journal of Medicine*, May, 1860, p. 316. I have dwelt upon it longer

than its relative importance demands, but it interests me greatly, as the strangest of all the phenomena of this singular disease, and because the study of it throws some light on other forms of paralysis.

The relations of scarlet fever and diphtheria are interesting. Many persons have said that they were one and the same disease; I shall, by and by, give you reasons for inferring that they are not. My present purpose is to show some curious modifications of each of these diseases produced by the other. A patient of Dr. Harris had, on the 10th of January of last year, diphtheritic inflammation of the throat. It continued for two or three days, when febrile symptoms of a more active character occurred, and pretty soon there was evidence that scarlet fever was about to make its appearance. The eruption came out, ran its course, the membrane disappeared; the throat, however, remained swollen and red, as it commonly is in scarlet fever, and the external glands of the neck also remained much swollen. On the subsidence of the scarlet fever the eruption of measles followed; this ran its usual course, and subsided without reproduction of the membrane. In about twenty-one days from the time of the first occurrence of the diphtheria—that is to say, on about the last day of January—the eruptive diseases having subsided, diphtheria reappeared, the swellings in the neck increased, the membrane penetrated into the trachea, and in two days this little child died. Now, an interesting question occurs—Why should this diphtheritic disease appear, then give place to other affections, still retaining its hold upon the system, to reappear after an absence of eighteen days? All we can say is, that in this particular instance there was a certain degree of antagonism between those eruptive diseases and the membranous diseases, in consequence of which the latter was compelled to wait for the former.

In another instance scarlet fever occurring in a boy, one of six children, suffering from that disease, at the same time, in a family attended by Dr. J. J. Crane, of this city, and Drs. Crane and Green, of Elizabeth, N. J., concurrent diphtheria produced a singular modification of the exanthem. One of his sisters exhibited the same peculiarity. When I saw these cases, three of them had diphtheria; the eruption in one had existed for eight days, and was as bright as it usually is on the third day; in her, membranous disease of the throat, of the tonsils, nasal passages, and larynx, existed at the same time. She recovered. In the boy, the eruption had existed for eleven days; it was still bright, and desquamation was active over the red eruption. It lasted till he died, four days afterwards. It seemed to have been caught and imprisoned there. In him the diphtheritic inflammation affected chiefly the fauces and the nostrils.

In the instance I just now cited of inflammatory swelling of the glottis, it was four days before the eruption of scarlet fever made its appearance. The eruption, instead of lasting six days, disappeared in less than four days; instead of beginning in the upper part of the body, extending gradually over the surface, it came out upon the whole body at once. It must have been somewhat modified by the previous existence of the diphtheria. In general, where these two diseases concur, the scarlet fever advances to about the period where the eruption begins to disappear upon the upper part of the body, the throat still remaining inflamed. This is the favorite time for the occurrence of membranous disease in the fauces. The membrane once formed, the disease follows the ordinary laws of diphtheria affecting the same tissues, but is attended, as I should judge, by a much greater mortality.

This same complication may be met with in measles. We have not seen much of it in New York, though it is spoken of in the occurrence of the disease abroad. Mr. Ryland, reporting from Birmingham, records an epidemic, occurring in 1856, in which diphtheria and measles were found to concur. In one case, that of a delicate child, aged five years, the eruption of measles was reported to have occurred on the 8th of June, 1856. Two

days after, the measles still continued out, the bowels were relaxed; the breathing was accelerated, and attended with mucous rattle; there was great difficulty of swallowing; a hoarse cough and almost total suppression of the voice; the back of the fauces could not be seen, but there were spots of membranous concretion on the roof of the mouth. The case proved fatal. On post-mortem examination, a thin, ash-colored membrane was found covering the uvula, a portion of the pharynx, the laryngeal surface of the epiglottis, and the lips of the glottis as far as the ventricles of the larynx. "About the same time many children died of a similar affection of the throat, complicated with measles. They had, in most instances, cough, difficulty of swallowing, impeded respiration, hoarseness; ultimately, suppression of the voice; and, in many cases, swelling of the submaxillary glands." Guersant and Daviot both recognise a disposition in the pellicular exudation to occur in the course of epidemic measles, scarlatina, and small-pox, and that it is in such cases that true gangrene is most likely to be met with in conjunction with diphtheria, showing itself with or after the exfoliation of the false membrane.

Diphtheria is reported to have occurred in persons suffering from various other diseases, for example, from abscess, pneumonia, gonorrhœa, etc. But its occurrence in such cases, according to the present state of our knowledge, must be looked upon as accidental. It seems to have a more natural affinity to such affections as produce inflammatory excitement in the throat and air-passages.

NOTE.—*Diphtheritic Ophthalmia*.—Dr. Noyes has been so kind as to bring to me a case of ophthalmic diphtheria for examination, since the second part of my first lecture has been in type; and at my request he has been good enough to give me a synopsis of some observations made in Germany on that affection, and also a report of the case here referred to. To-day (March 30) he brought me portions of the membrane taken from the eyelid. We examined it under the microscope, and found that it was composed of the elements which usually constitute the membrane of diphtheria when it appears on other surfaces. A fine fibrillation is the basis of this exudation, and the fibres are everywhere sprinkled over with minute granular matter. But there are parts in which no fibres can be seen. In such parts the small nucleated and the elongated cells take their place. Pus cells are also seen overlying the fibres in certain parts. These were probably produced on the attached surface, though possibly on the free, as this exudation is the growth of twenty-four hours, and a second membrane from the same eyelid.

I offer the following contribution of Dr. Noyes for publication because, in giving the results of an extended observation, it softens the too stern inferences that we should be compelled to draw from the Randall's Island cases alone, those being nearly all of them diphtheria engrafted on measles; and because it shows us a wider range of circumstances under which the ophthalmic disease may occur.

MARCH 30, 1861.

The most complete account of this diphtheritic conjunctivitis is by Prof. Graefe, published in 1854, *Archiv für Ophthalmologie*, Bd. 1, Abth. 1. The article is now being translated, and appears in the *London Medical Review*. He observed three epidemics from 1852 to 1854. In each epidemic the earliest cases were the most severe. He thinks the disease decidedly contagious. As to the danger of the disease, it consists in the communication of inflammation to the cornea. Of forty children, in nine cases the eyes were totally lost, three had leucoma with anterior synochia, in seven there were left corneal opacities, and twenty-one recovered with unimpaired sight. Of eight adults, three lost sight by suppuration of the cornea, in two the cornea was perforated by ulceration, and the remaining three had opacities. The danger to vision is greatest the earlier the cornea becomes affected, and as seen above adults suffer more severely than children. During the time that the exudation persists he treats the disease by the use of mercurials and tonics, by leeching if the strength be good, and

by ice-water lotions; when the exudation falls off and the blennorrhœal stage is set up, he employs nitrate of silver, as his practice is in cases of simple purulent conjunctivitis. Sometimes the disease leaves a distortion of the eyelids from contraction of the conjunctiva.

There is another account of this malady by Dr. Jacobson, *Archiv für Ophthalmologie*, Bd. 6, Abth. 2, 1860. He saw twenty-two cases in epidemics of diphtheria, and forty sporadic cases, among two thousand patients during five years. The summary of results is—out of seventeen patients, there being twenty-two eyes affected. Five eyes utterly destroyed, four had adherent leucomata, six retained corneal opacities, four escaped without injury, and in three the diphtheritic inflammation effected the removal of pre-existing pannus of the cornea. The treatment was the constant application of iced water, scarifications of the conjunctiva of the lids. If the cornea began to be affected, dropping a solution of atropine, gr. ij. ad aquam 3j, frequently into the eye; if perforation of the cornea was threatened, to evacuate aqueous humor, and do it repeatedly if supra-orbital pain or increase of the ulcer indicated its necessity. Nitrate of silver and mercurials were discarded as injurious.

The forty sporadic cases terminated in a much happier manner—no eyes were destroyed or suffered serious damage.

A case is reported by Mr. Hutchinson in the *Ophthalmic Hospital Reports*, October, 1859, page 130. He scraped off the membrane, and cauterized the surface with nitrate of silver. The cornea sloughed, and subsequently, from the debilitated state of the child, an abscess formed over the shoulder.

The following case is the first of diphtheritic conjunctivitis which has presented itself at the New York Eye Infirmary during the last eighteen months, viz.:

Joseph B—, aged 2½ years; a pale, delicate child, who has had measles, varioloid, dysentery, but for a few months been in better health than usual. Ten days before coming under observation, the right eye became inflamed; at the same time the child became very fretful, had cutaneous eruptions of small white and red spots, not vesicular. At present, is very unwilling to be examined in any way; pulse 128, weak, has no diarrhœa, sleeps badly, the tonsils swollen, no exudation in fauces. The eyelids are very tumid, and of a dusky red color; a muco-purulent secretion flows over the cheek. On everting the lower lid, a yellowish matter covers its surface, excepting at the cul de sac, where the membrane presents a deep red color. This yellowish matter adheres closely where the attempt is made to wipe it off, only particles are rubbed away and the surface begins to bleed. The exudation has formed in spots upon the cutaneous surface as well as upon the margin of the lid. The conjunctiva bulbi has a pale look as if infiltrated with lymph, although not overlaid like the palpebral conjunctiva. There is no chemosis. The disease having lasted ten days, the exudation is beginning to separate at the edges, and exposes an intensely congested, sacculent mucous membrane, like an ordinary case of purulent conjunctivitis. The cornea has preserved its transparency.

The termination of the case will be hereafter reported. I could not learn that diphtheria, or any infectious disease, existed in the tenement house where this child lived.

H. D. NOYES.

CLINICAL LECTURES.

DELIVERED IN THE N. O. CHARITY HOSPITAL.

By AUSTIN FLINT, M.D.,

PROF. OF CLINICAL MEDICINE AND MEDICAL PATHOLOGY, IN THE N. O. SCHOOL OF MEDICINE.

LECTURE VI.—PNEUMONIA.

PHYSICAL EXAMINATION OF PULMONARY CAVITIES.

I SHALL to-day invite your attention to an important subject. I have before me the lungs from the body of a

patient who recently died in one of my wards with pulmonary tuberculosis. The patient was in the ward when my service commenced, October 25. He had been in the hospital since May last. I found him extremely feeble, and he continued to decline steadily and died a few days ago. I shall not detain you with a history of the case. I will only remark that it furnished an illustration of the remarkable serenity of mind and hopefulness which we frequently observe in the progress of this disease. The patient made no complaints, daily reporting himself more comfortable. The emaciation, anemia, and feebleness were painfully in contrast with his belief in his progressive improvement and steady conviction that he was on the road to recovery. He died apparently without having had any apprehension that his disease was likely to end fatally. This state of mind in the present instance amounted to an insane delusion with respect to recovery.

The lungs, as you see, at their apices are invested with firm false membranes. The opposed pleural surfaces were strongly united in these situations, while the remaining portions of the organs were free from adhesion. The pleuritic attachments which are almost constantly found over tuberculous deposits in the lungs, are conservative provisions protecting against an accident which occasionally occurs, viz. perforation of the lung, and the escape of liquefied tubercle into the pleural sac. Under these circumstances acute pleuritis becomes developed, and air gets access into the pleura, so that we have the affection known as pneumo-hydrothorax, an affection which generally destroys life in a short time.

I wish especially to direct your attention to the upper portion of the left lung in this specimen. On cutting into this lung at its apex, I have opened a cavity of considerable size. It is larger than an English walnut, and nearly as large as a small orange. The cavity is empty. Its internal aspect presents several furrows caused by projecting ridges of condensed pulmonary substance. This appearance is called anfractuous, and is characteristic of tuberculous cavities. A band of condensed pulmonary tissue traverses a part of the cavity. This is often seen in tuberculous cavities, and explains the occurrence of hæmoptysis in some cases of advanced phthisis. These bands may contain bloodvessels, and, when ruptured, the vessels are opened, and hæmorrhage takes place, which is sometimes profuse. I wish you to observe that the walls of this cavity, at its upper and anterior surfaces, are quite thin, consisting only of the pleura with its false membranes and a layer of condensed pulmonary tissue not more than a line or two in thickness. I wish you also to observe that the lung surrounding the cavity is not solid but soft, and to some extent crepitating. On cutting into it a puruloid liquid flows from the divided surfaces, and numerous minute cavities from the size of a pin's head to a pea are seen, but no deposit of crude tubercle.

Now let me direct your attention to another point. I introduce the nozzle of a pair of bellows into the left bronchus, and close the incisions which I have made into the lung below the cavity. You see that air enters very freely into the cavity through five or six openings, the situations of which are shown by air bubbles. The cavity, then, had free communication with the bronchial tubes through these several openings.

I shall now cut off the upper portion of the left lung, and send it round for your closer inspection.

I have pointed out the situation of this cavity and other circumstances for a particular purpose. This will appear as I proceed to read a part of the record of the physical examination of the chest in this case, noted in my book of hospital records three weeks before the death of the patient. I read as follows:

"At the summit of the chest on the left side in front and behind there is relative dulness on percussion. Over a circumscribed space below the clavicle the respiration is cavernous; the inspiratory sound is non-vesicular and low in pitch, and the expiratory sound is still lower in pitch.

This circumscribed space is of about the size of a dollar. Below and around this circumscribed space the respiration is bronchio-vesicular, or what has been commonly called rude, that is, the inspiratory sound is partly vesicular and partly tubular, and the expiratory sound is higher in pitch than the inspiratory. Within the circumscribed space just mentioned the cavernous whisper is heard, i. e. a blowing sound low in pitch; around this space the whispering sound is bronchial or high in pitch. The vocal resonance is greater on the left than on the right side, but there is no approach to pectoriloquy anywhere."

Thus, gentlemen, it appears that the cavity which you are now examining was localized during the life of the patient by certain physical signs explicitly recorded, and the size as well as the situation of the cavity was noted. Now, it is not my purpose to convince you that, after having devoted considerable attention for not a few years to the subject, I have acquired some skill in physical exploration. There was in reality no great amount of skill involved in the localization of the cavity in this instance. There are those in the class before me who would have had no difficulty in discovering the cavity. I have another purpose, which is to make a few remarks on certain cavernous signs which I claim to have ascertained, and without which I believe cavities cannot be correctly localized.

Without going fully into the history of the subject here, I will firstly say that, anxious as was Laennec to determine a series of signs peculiar to cavities, he succeeded but imperfectly. The cavernous respiration as described by him, has been abundantly disproved, and pectoriloquy has been shown, not only to be very often wanting when cavities exist, but to be present when cavities are wanting. Later observers in this field of study have not succeeded better. By some, bronchial respiration has been considered as cavernous under certain circumstances, and Walshe states that cavernous breathing sometimes occurs over solidified lung when no cavities exist. It appears to be a common impression among many who practise auscultation, that an intense bronchial respiration denotes a cavity, and as this impression is altogether incorrect, errors are often made.

In an essay on the variations of pitch in percussion and respiratory sounds, published in 1852,* I suggested as probable the distinctive characters of cavernous respiration as described in the record of this case, viz. a low-pitched non-vesicular inspiratory sound, with an expiratory sound still lower in pitch. These characters are in contrast with those which belong to the bronchial respiration, the latter consisting of a high-pitched tubular inspiration and an expiratory sound still higher in pitch. In the essay referred to, these characters of the cavernous respiration were given with a reserve, which was considered as proper, inasmuch as their correctness had been verified in only a few cases. In my work on the respiratory system, published in 1856, I gave the same description of cavernous respiration, but I stated that the respirations at that time had not been numerous. They have been, to my mind, sufficiently numerous since; and for the last two or three years I have never failed to demonstrate to classes of private pupils in auscultation the cavernous respiration as distinct from the bronchial.

I do not complain that others have not adopted my description of cavernous respiration, and that writers, even in our own country, make no allusion to it; for, if the description be correct, it will sooner or later be so recognised. All that I claim for it is that it be submitted to the test of clinical observation by competent observers in this department of study. With the hope of securing this end, I am glad to avail myself of proper occasions to bring it to the notice of auscultators.

Another cavernous sign which was frequent in this case, is, so far as I know, original with me. I refer to what I have called the cavernous whisper. After the publication of the essay just referred to, I was interested in the study of sounds produced by the whispered voice. Over solidified

lung, when the patient speaks in a whisper, a high-pitched soufflé, or tubular sound, is usually heard. This sign is correlative to the bronchial or tubular respiration. In the winter of 1855 I was led to observe that over a pulmonary cavity the soufflé produced by whispered words is low in pitch as compared with the high-pitched sound, denoting solidification of lung. The latter I have named whispering bronchophony, or the bronchial whisper, the latter term being preferable as the simpler and more expressive of the two. The term tubular whisper would also be appropriate. The sound heard over a cavity may be distinguished as the cavernous whisper. I have noticed this sign in an appendix to my work on the Respiratory System. The cavernous whisper is correlative to cavernous respiration, for the same reason that the bronchial or tubular whisper is correlative to the bronchial respiration. The whispered sound is, in fact, only the expiratory sound more intense than in ordinary breathing. If, therefore, bronchial respiration be characterized by a high-pitched expiration and cavernous expiration by a low-pitched expiration, we can readily understand that the same difference should hold good between a bronchial and a cavernous whisper as regards pitch. Clinical observation shows this to be true.

Dr. Walshe, in the late edition of his able work on the diseases of the chest, does me the honor to notice my account of cavernous respiration in the following terms: "It has been suggested by Dr. Flint that bronchial respiration may be always distinguished from cavernous by the relative pitch of inspiration and expiration—the latter higher than the former in bronchial, lower in cavernous breathing. Exceptions are so common, I fear, as to render this alleged rule unworthy of trust." I can readily understand how Dr. Walshe arrived at this conclusion, assuming that he has not made the subject one of deliberate clinical study. If the true cavernous respiration be such as I have described when it is distinctly present, it always denotes a cavity. It can signify nothing else, as well marked bronchial respiration always denotes solidified lung. There are no exceptions to the rule. But the cavernous respiration is by no means always present where centres, even of considerable size, exist. The absence of cavernous respiration is not evidence against the existence of a cavity, but its presence is proof that there is a cavity. The truth is, we get bronchial respiration oftener than the cavernous, even directly over a cavity. The explanation of this is obvious. Cavities are often surrounded with solidified lung, and the bronchial respiration, representing the latter, drowns the cavernous respiration. Then, the latter requires for its production that the cavity should be empty, that it should communicate freely with the bronchial tubes, and that its walls should collapse and expand with the acts of expiration and inspiration. For the cavernous respiration to be produced, in addition to the conditions just mentioned, the cavity must be superficially situated, and not surrounded with complete solidification of lung. A cavity situated within a mass of solid tubercle or condensed pulmonary tissue, will not be likely to furnish the cavernous respiration unless the cavity be quite large, or unless, for some reason, the solidified lung fail to give an intense bronchial respiration.

In the specimen, gentlemen, which you are now examining, all the necessary conditions for the production of the cavernous respiration and the cavernous whisper are present. The cavity is large; its walls are thin, and readily collapse; it is superficially situated; it communicates freely by several openings with the bronchial tubes, and the lung surrounding it is not solidified sufficiently to produce the bronchial respiration. These circumstances account for the fact that the cavernous signs were so extremely well marked.

In leaving this subject, I would remark, that not unfrequently we find the characters of the cavernous and the bronchial respiration combined in variable proportions. Appreciating the distinctive characters of each, it is, I think, easy to recognise the fact that they are combined in certain

* Trans. Am. Med. Association, Vol. ii.

cases. We can understand readily why this should be so, when we consider, as just stated, that cavities are so often surrounded, more or less, with solidified lung. I have repeatedly observed an inspiratory sound to commence as bronchial and end in the cavernous—that is, the sound suddenly falls from a high to a low pitch during the inspiratory act. The reason of this is, the bronchial inspiratory sound is more quickly evolved than the cavernous. To express the combination of bronchial and cavernous characters, I have employed the term bronchio-cavernous respiration, which, as it is purely a descriptive term, does not complicate the subject, and is often a convenient mode of expression in recording cases.

Original Communications.

RELIEF OF CERTAIN FORMS OF APHONIA

BY
ANÆSTHETIC VAPORS.

By FREDERICK D. LENTE, M.D.,
OF COLD SPRING, N. Y.

THE recent occurrence of a case of this kind, of which the following is a brief abstract, induces me to give publicity to one very similar to it, which occurred in my practice a few months ago.

T. B., æt. 19, a carman, living in London, was attacked in the early part of 1860, with hoarseness, enlargement of the sub-maxillary glands, and sore-throat. In March, he applied at one of the Dispensaries for relief, and was treated, but without much benefit; he then applied in turn, at several other hospitals, including St. Bartholomew's; having, in the mean time, entirely lost his voice.

In December, he applied to the district medical officer, who, on examining the throat, found the left tonsil slightly inflamed, but no other appearance of disease, and could detect no syphilitic taint or history. He, however, noticed considerable rigidity of the muscles of the jaw, and thought it advisable to try the inhalation of *chloroform*. "He was accordingly placed under its influence, and its effect was truly magical, as he called out for his mother quite distinctly. He went home, and agreeably surprised his friends by speaking to them the first time in *eight months*, articulating every syllable." A week afterwards, his voice had not left him.

The following is a brief history of my own case. Miss M. W., an unmarried female, about 40 years of age, has been for the most part bed-ridden for the last ten or twelve years, apparently from the effects of a violent and protracted attack of dysentery, for which she was treated by another physician. During all this time, she has also been more or less troubled with a reducible femoral hernia. She has never been at all hysterical, or even nervous, in the usual acceptance of the term. Some time in the early part of 1860, she lost her voice, so that she could not articulate above a whisper. This was a source of great annoyance to her, as she is very fond of conversation. She was, of course, very solicitous to have something done for her relief; but, as I could discern no lesion whatever about the fauces or larynx, and could assign no possible cause for the *aphonia*, I was at a loss what course of treatment to pursue, and so did nothing, comforting her with the hope that she might one day regain her voice as suddenly as she had lost it.

In December, 1860, her hernia came down, could not be reduced, and became strangulated, resisting all the attempts of Dr. Richerson, who was first called, and of myself subsequently, to reduce it. In our attempts, we used the inhalation of sulphuric ether twice each time, the patient, on her recovery, expressing her belief that she articulated with less effort, although she still spoke in whispers. Finally, a resort to the knife became necessary, and she was again

brought fully under the influence of the anæsthetic. The operation was protracted from several causes, and she was under the full influence of the ether for nearly two hours. As soon as she had fully recovered from the effects of the anæsthetics, she exclaimed, apparently with the greatest delight, and in quite an audible voice,—"Doctor, I can speak," and she has been "speaking" fluently ever since, now nearly three months.

I always had a suspicion that *hysteria* was at the bottom of this case of aphonia; and Dr. Richards, the reporter of the London case, asks—"May it not be reasonable to conclude that this case was one of mere hysteria?"

It is possible that many chronic forms of throat difficulty, whether attended or not by aphonia, might be benefited, when all other means fail, as they are so apt to do, by the stimulating, anæsthetic, or antispasmodic effects of ether or chloroform, which treatment, the perusal of these cases may induce others to try.

VERATRUM VIRIDE IN PNEUMONIA.

By SAMUEL PETERS, M.D.

CRESCENT, SARATOGA Co., N. Y.

It is well understood in the profession, that a few of its members repose great confidence in the use of veratrum viride in pneumonia. I wish to record my humble name among this few. Having been for several years a careful observer of its powers in this disease, I deem it due to the profession that I make known the result. This is done with the greatest pleasure, from not having met with that accumulation of favorable testimony in the journals, which I expected. Moreover, Prof. Wood says, in his *Therapeutics*, vol. ii., page 155 (and no one will dare to question such authority hastily), that "it should not be employed to the exclusion of the lancet;" also that "when the state of the system does not admit of depletion, it may sometimes, I have no doubt, be employed with advantage;" and again that, "it has been much employed, especially in the South, where pneumonia often assumes a form which does not well bear depletion."

Now, as my observations have led me to a conclusion somewhat differing from what is taught in the above quotations, the propriety of this simple statement will be admitted. I shall not attempt a discussion of the question of depletion, which has been fairly met by some of the distinguished leaders in the profession, and ably and fearlessly discussed. I will only here endorse the language of Prof. Flint: that "I do believe, that in the great majority of cases, even when the disease is observed from its commencement, blood-letting is not called for."

My first experience in the use of veratrum occurred in April, 1855. I selected a case the subject of which was a man about twenty-eight years old, of spare form and thin chest, whose mother had previously died of Phthisis. His right lung was extensively inflamed, and I believe that under the ordinary treatment he would not have survived. He made a perfect recovery, not, however, without encountering great danger. Soon after this, it was made use of in other cases, and since that time I have scarcely passed a day without having it in my possession. The number of cases I have treated with it, cannot be given. It is, however, not small, and although I have depended on it in every one, except infants of a few months, not one has proved fatal. This success may, perhaps, be partially attributed to the fact that there have happened in connexion with the cases, no serious complications. Children and adults of various ages, from two to eighty years, and of almost every grade of constitution, have been subjected to its action, and the result has been perfect recovery, so far as I am aware, in every instance.

Although I will not assume the responsibility to condemn remedies, nor would I wish even to weaken unduly any confidence reposed in them, yet in a general practice in pneumonia, I have not employed venesection, antimony

and calomel (except in one case, which will be shortly noticed), because they did not seem to be called for by any peculiarity which would imperatively demand their use; and moreover the convalescence after the veratrum treatment appeared to be more rapid and favorable. The case excepted, was one of extreme congestion of nearly the entire both lungs, in the person of a full-chested, thick-necked, muscular man, about thirty-eight years of age, in whom suffocation strongly threatened. In such a case, venesection boldly carried out, offers, I think, the only chance for aiding this vital organ in carrying on a degree of aëration of blood sufficient to sustain life, till the action of other appropriate remedies can be secured. In the language of Dr. Markham, London Lancet, 1858, vol. i., page 206, "it is practised here, not so much to reduce the inflammatory process, as to set free the action of a vital organ." With such exceptions, the early stage, the bounding pulse, the painful respiration, and the young strong subject, will not, as they have not done hitherto, tempt me to resort to the lancet. Laxatives, opium at night, demulcents, occasionally a blister and animal broths after the veratrum has established its full influence on the circulation, comprehend about the only agencies employed.

The usual duration of the disease from its commencement of treatment, to the establishment of convalescence, was six or seven days. In a few cases, this period was much shortened, convalescence being fairly established in two or three days. In this, I cannot be mistaken, as they presented the usual subjective and physical symptoms.

The plan of Dr. Norwood was to commence with seven or eight drops, and repeat every three hours, increasing one drop at each dose, till emesis occurred, or the pulse was diminished in frequency, then to reduce the last dose one half. This course I found produced powerful action, and generally caused such a degree of alarm, that the attending physician was hastily summoned, even after an explanation had been previously given of the harmlessness of the symptom; when the appropriate remedies were resorted to. This great obstacle to its general use was obviated by smaller doses in the commencement, and a more gradual increase. The better way is to order about four drops every three hours, and increase one drop every fourth dose, till vomiting ensues, or the pulse becomes reduced in frequency or free perspiration is induced; in either case, to diminish the dose slightly. Administered in this way, I have never observed any of its alarming effects, although I have persevered with it for days together uninterruptedly.

Compared with digitalis, in reference to its convenience in meeting the demands of the country physician, for agents that can be managed by ordinary attendants, veratrum, as a nervous sedative, is far superior, both in respect to its safety and to the certainty of its action. I believe, however, that it possesses little value, unless its controlling action upon the circulation be secured and steadily maintained; and that this maintenance can only be effected by the frequent repetition of the dose. In this respect, it is entirely unlike digitalis, which generally continues in action for several days. In old persons, with enfeebled constitutions, I have been particularly gratified with its favorable action. To observe it softening and cooling the surface, bathing it in free perspiration, removing gradually the anxious expression of countenance, promoting free and easy expectoration, and all with a certainty of action that can be realized of few other remedies, is surely enough to demand the confidence of every observer.

APPEARANCE OF A BODY

AFTER FIVE AND A HALF MONTHS' INTERMENT.

By W. H. BUTLER, M.D.,

EAST SAGINAW, MICH.

I COPY from my note-book the following case occurring in practice in Buffalo, thinking it may be of interest or importance in a medico-legal point of view.

March 30th, 1859, made a post-mortem on the body of W. M. Drs. Rochester and Barnes present. The man had been a hard drinker for several years. Two days before death he was taken with delirium tremens, and a physician saw him but once. Some suspicious circumstances coming to the knowledge of the authorities, the case was referred to Coroner Randall, who ordered the exhumation of the body. The subject was about forty years old—was buried October 15th.

General appearance of the body a greenish black color; much decomposed; wasted; discolored, and having a very offensive smell; cuticle softened, desquamating, and gone in some places; teeth eroded. Eyes sunken, not decomposed; their color cannot be distinguished, probably owing to absorption, wasting of the iris, or ulceration of the cornea, which takes place so often in the dying and dead, giving a glazed appearance to the eye. Omentum of considerable thickness, and I thought approaching adipocere, of a cream color, and pretty firmly attached at its upper edge. Pericardium of a pale pink color, very dry. The heart seemed like brown paper, dry and crumpled; the cavities and columnæ carneæ had apparently all wasted equally; the walls were about the thickness of brown paper, say one-twentieth of an inch. The interior presented a beautiful tracing of the fleshy columns—quite delicate, but perfect. There was no fluid in any of the blood-vessels. Lungs collapsed and disintegrated. Liver presented a very intense blue or bluish-green color, doughy to the fingers, the impression remaining and feeling like putty, cut dry. It seemed to me large proportionally, extending as it did well over against the left ribs. Gall-bladder empty. Stomach reddish-brown color, had a small contracted appearance, which on cutting open was shown to be due to a folding over on itself. Internally it had a highly injected appearance with spots of gangrene at the greater curvature near œsophagus, and also where it had been folded together, particularly the lower part. Mucous surface dry, and of the appearance of thick brown paint. The lower part doubled over on itself, and there it was greenish blue or gangrenous; cut pretty firm. Noticed quite large blubbers or blebs filled with gas between the coats of the stomach. The lower part of the ileum highly injected and red for a considerable space from junction with colon upwards; and towards its middle, other spots. They were somewhat contracted; generally pale in color with injected spots; pretty well preserved. Some of the intestines near the liver stained with bile; kidneys normal in size, dark color and softened: the centres of a slate color. I found little brownish granular bodies over nearly all the viscera; they were quite firm, and not easily scraped off by the scalpel. These were seen particularly over the lower edge of the liver, on the heart, in the arteries near it, and in the arteries of the kidneys.* I learned that the body was buried four and a half feet deep, and noticed on the coffin yellowish loam, and subsequently learned the ground was of a dry yellow earth. This may in some manner explain the apparently dry rot (if I may be allowed the expression) that seemed to have acted on the body, taken in connexion with the cool weather at the time of interment.

It had been charged that the subject died of poison, as vomiting, purging, and other symptoms pointing that way had occurred just before death: but on the inquest a respectable physician testified to the unmistakable symptoms of delirium tremens being present two days before he died, and several persons corroborated the testimony. It also appeared that he had for many years been a hard-drinking man. These facts, with the absence of any well grounded reason for the commission of so grave an offence, rendered the analysis of the viscera unnecessary. It seemed as if the only physical signs worthy of attention were the preservation of the body; gangrenous spots at the greater curvature of stomach, and the pinkish hue of the

* See note, Beck's Med. Jurispr., v. II., p. 52.

muscles about it. But it seemed all these might be due to other causes; hence the case was dismissed.

RUPTURE OF THE TENDON OF THE RECTUS FEMORIS MUSCLE.

By R. O. MASON, M.D.

WM. D—, æt. 51 years, a policeman, temperate, having a tendency to corpulency, while patrolling his beat at three o'clock on the morning of January 4, 1860, slipped with his right foot on a spot of ice, bringing the whole weight of the body suddenly upon the left leg. Something in the limb "gave way," as he expressed it, "with a report like a pistol," and he fell heavily upon the ice. He was soon picked up, and finding he had no control over the injured limb, was assisted to the Station-house. I saw the patient half an hour after the accident. He was sitting in a chair, not complaining of any pain, and without any apparent deformity. On examination I could detect neither fracture nor dislocation. Being assisted to rise he could stand and even bear his whole weight upon the injured limb without pain, but could raise the foot from the floor only by elevating the whole limb and pelvis, and could move it forward only with a swinging motion, describing a sort of semicircle.

On examining more carefully in the vicinity of the knee-joint a sulcus was discovered, one inch and a half above the upper border of the patella, and wide enough to contain two fingers. Straightening out the limb and passing the fingers firmly along the rectus femoris, the muscle was found perfectly relaxed, and it was evident that the continuity of the tendon was broken, the ends of the fragments being distinctly felt both above and below the depression.

Six hours after, the limb was put up with a straight splint underneath reaching some distance above and below the knee-joint, and two short splints, one upon the muscle above the rupture and the other below the patella, all well padded; the former having a firm broad compress attached to it to act upon the muscle. Each of these was fastened firmly to the long splint underneath, and also to each other. Patient was then kept quiet in bed for four weeks, after which he was permitted to sit up, with the splints still adjusted, being relieved from them occasionally, however, and having the limb gently rubbed. At the end of eight weeks the splints were entirely discontinued, and the patient allowed quietly to resume the use of his limb. A firm callus now occupied the place of the former sulcus.

From that time the muscle rapidly regained its power and function, and now, one year after the accident, the patient knows no difference in the use of the two limbs, excepting a little pain and stiffness after unusual exposure, or sudden and severe changes of the weather. I have given the case simply on account of its rarity, thinking it might prove of interest at least to some of your numerous readers.

Reports of Hospitals.

NEW YORK EYE INFIRMARY.

GLAUCOMA—HANCOCK'S OPERATION FOR THE DIVISION OF THE CILIARY MUSCLE—RESULT SUCCESSFUL.

By F. J. BUMSTEAD, M.D.

MRS. M., a widow, aged forty-three, who supports herself with her needle, applied at the Infirmary, November 16, 1860, for an attack of acute glaucoma in the left eye, supervening upon chronic choroiditis of several years' standing, and sympathetic disease of the opposite eye.

Her present attack commenced without apparent cause other than excessive use of the eyes six weeks ago; since which time she has suffered excruciating pain in the globe

and temple, and has been reduced to an exceedingly debilitated condition by loss of sleep, and the low diet, depletion, and seclusion injudiciously directed by her attending physician.

Upon examination, the left eye is found to be abnormally hard to the touch; its vessels much congested; the cornea cloudy; and the pupil somewhat dilated and immovable. The sight of this eye was lost several years ago from the chronic inflammation above mentioned. An attempt to ascertain the condition of the choroid and optic-nerve entrance proves unsuccessful owing to the haziness of the cornea and lens, which obscures the deeper structures.

The opposite eye is intolerant of light, and watery, and its vision impaired; thus showing that its integrity is threatened, and that immediate measures are required for the preservation of sight.

Having been disappointed with the result in several trials which I had previously made of iridectomy, as advised by Von Graefe for the relief of glaucoma, I determined to resort to Mr. Hancock's operation for the division of the ciliary muscle, which recommended itself by its simplicity and the little danger attending it; and believing that the affection of the right eye was due to sympathy with the left, I resolved to operate upon the latter. I accordingly placed my patient under the influence of ether, and, with a Beer's cataract knife, made a section of the conjunctiva and sclerótica radiating from the corneo-sclerotic juncture, midway between the inferior and external rectus, obliquely downwards and backwards to the extent of about an eighth of an inch. This procedure required little more than a simple puncture with the point of the knife, the blade being buried an eighth of an inch beneath the conjunctival surface. The incision was followed by the flow of about a drachm of blood from the choroidal vessels, and some of this fluid gained entrance to the anterior chamber, but was readily evacuated by separating the edges of the wound with the point of a director. I now closed both eyes with isinglass plaster, and ordered two grains of quinine three times a day, together with a nourishing diet and an opiate, if required.

Upon seeing my patient the following day, I found that the effect of the operation had been almost magical. Since awaking from the influence of the anæsthetic, she had been entirely free from the pain which had harassed her for six weeks; she had had a good night's rest without the opiate; the intolerance of light had disappeared, and the eye was much less congested. Of course no improvement of vision was to be expected in the left eye, which had been blind for several years. Mrs. M. remained at the Infirmary for a week after the operation, during which time she continued to improve, and when she left the inflammation had entirely subsided, and the sight of her right eye was completely restored. I heard through her physician, in the early part of January, that she had continued well up to that time.

This is the first case, so far as I know, in which Hancock's operation has been performed in this country; and although a single trial is of course insufficient to justify a decided opinion, yet the successful result in this instance, taken in connexion with the cases reported by Mr. Hancock, affords reasonable ground to hope that this new method will prove of very great value in the treatment of one of the most dangerous diseases to which the eye is subject.

These favorable anticipations have been strengthened by the result of another case, which I was requested to see in consultation with my friend, Dr. Abram DuBois, on the 14th of February. The patient, a merchant of this city, about sixty-five years of age, lost the sight of his left eye from glaucoma several years ago, within a week after the commencement of the attack. At the time I saw him the same disease had appeared in the right eye; he was suffering very severely from circum-orbital neuralgia; and his vision was so obscure that he could with difficulty distinguish between small objects, as, for instance, between a pocket-knife and a pencil-case. He had been freely cupped

upon the temple the night before, with very little, if any relief. Hancock's operation was performed by Dr. DuBois without the assistance of an anæsthetic, and in fifteen minutes afterwards the pain had entirely ceased. On the second or third day the patient could read newspaper type, and within a week insisted upon going to his office and attending to his business. In this case, the aqueous humor escaped and slight prolapse of the iris took place, but there was no loss of blood.

In each of these cases the improvement in the symptoms following the operation might possibly be ascribed to the relief of the tension of the globe in consequence of the evacuation of the humors; but I believe that Mr. Hancock is right in his assertion that this explanation is insufficient, inasmuch as simple paracentesis oculi has never afforded an equal amount of benefit, and in several of the cases reported by this surgeon no fluid whatever has escaped from the eye. I do not propose, however, to discuss at present the theory of this and other operations recommended of late for the relief of glaucoma, but would refer the reader to the original papers of Graefe and Mr. Hancock, and to the able article by my friend, Dr. Noyes, in the number of this journal for February 2d.

American Medical Times.

SATURDAY, APRIL 6, 1861.

UNREQUITED MEDICAL SERVICES.

THERE appears to be a growing conviction that the maxim of the laborer being worthy of his hire, does not apply to the medical profession. While Legislatures fix with scrupulous regards salaries for state officers; while sheriffs, county clerks, and even cormorant lawyers have their fees assigned to them, nothing is given, nothing is provided, nothing allowed the physician by positive enactment. That it is a high honor to be a physician all will admit; even among cannibals the medicine-man is looked up to as worthy to be revered; but we doubt whether any draft upon that honor would be accepted by a city bank in payment of a note, or by a city landlord in payment for a quarter's rent. It is true, we never saw the experiment made, but we should be strongly inclined to argue *à priori* against its success. The time has gone by, if it ever existed, when honor alone will support a man in any profession, and the *quiddam honorarium* of the physician should always be considered as among those inherent professional rights which no body of men should deprive him of. The scriptures teach us that even the high and sacred office of the ministry is not to be an uncompensated service, and that, on the contrary, "they who minister at the altar shall live by the altar," and there is no valid reason why physicians should not be rewarded, in the sense of being paid for their services whenever it can possibly be done.

We trust that the current of these observations will not be misunderstood, so far as to be considered derogatory of that spirit of humanity which makes it a pleasure with every physician to render gratuitous services whenever called upon. Far be it from us, who both believe and practise in this humanitarian creed, to deride its recognition in others. Nay, it is so far a sacred duty with the physician to *give* his services, where he knows he can expect no pay

for them, that he has not yet learned the alphabet of medical ethics, who entertains any doubt upon this subject. And it has ever been a source of professional pride that the statistics of medical practice, since the earliest days of our art, show how generous and self-sacrificing have been its ministers in attending to the calls of suffering humanity; how great have been their sacrifices, and how earnest their devotion to the welfare of their fellow-men. Against gratuitous services rendered to and required by individuals in private practice, there is no occasion—no right, in fact, to say aught. It is a duty and a pleasure to render them, and each will do—must do—in these things, according as his conscience prompts him.

But there is a different theatre upon which medical men are required to give their services, and where, in return, the honor of bestowing them is supposed to compensate them for the time and talent consumed. We allude now to our HOSPITALS and MEDICAL CHARITIES. It is surely not necessary for us to enter at large into any examination of the benefits accruing to students in medicine from attendance upon hospital clinics, nor of the advantages presented to their teachers by the subjects illustrative of the text of their lectures, thus brought under their eyes and control. Such things are self-evident, and explain themselves. A clinical lecture is more easily and effectively delivered in a Hospital, than in the amphitheatre of a medical college. So far, then, as the *locus in quo* of the service thus rendered the Hospital, is at the same time a convenience to the professor who instructs his class thereby, he can justly expect no compensation, for he receives that from the students. And indeed a small tax as hospital fee, charged students as a return for additional advantages and opportunities afforded them, ought to be more generally adopted.

The main point of our inquiry therefore becomes this, viz. Should the hospital staff be paid for the services rendered by them, and if so, by whom?

No one, we fancy, be he layman or physician, doubts the value of the medical services publicly rendered in our various institutions throughout the year. To say that they are worth nearly a million of dollars, is simply to assert what is susceptible of most easy demonstration. Bestowed as they are by some hundred or more noble-spirited men from year to year, they have become so much a matter of fact, as to excite no remark, and evoke no special gratitude from the public. Let, however, any merchant whose easy gains are earned by no personal risks or discomforts, present a fifty-dollar bill to any public institution, and behold the special vote of thanks instantly emanating from the Board of Trustees, and the great care taken that the Treasurer shall not omit to notice in suitable capitals the name of this generous patron, in his next annual report. But the physician or surgeon, who visits the institution every day for weeks and months, and spends an hour or two there, carved from the treasury of his private practice, what public thanks or mention does he get? Why, if a body of merchants equal in number to the staff of our Hospitals, were each to present a hundred dollars a month to such an institution, they would not equal by half the value of the services medically rendered during the same time by each and every member of that staff. And while laymen would receive some *quid pro quo* for such manifestations of generosity, the practice of which does not take them from their business one single hour, nor interfere with the current of their daily gains, the medical man turns his back upon the lucrative

call, in order to attend to the performance of gratuitous services. As between him and his conscience, this may be right; and the still small voice within may more amply reward him by its approbation, than do the thanks and newspaper puffs, which laud mercantile generosity to the skies. But as between him and the public at large—it is not right. Some compensation, it need not be large, ought to be given to the medical staff of our large hospitals, and that compensation should come from the state or the county where the services are rendered. There might be some conditions attached to the salary to meet particular degrees of service, but no services should be considered as adequately remunerated by the simple film of honor which compels and covers their rendition.

The doctrine of gratuitous services as a necessary appendage to practice in the liberal professions is only an inherited myth, and has long been laughed out of the ethics of every vocation, lay or clerical. Ministers and missionaries receive salaries; lawyers have their statutory fees; and physicians when attached to hospitals, and daily, for many months in the year, rendering exclusive services to hundreds of *pay-patients* in their wards, have certainly earned, and of consequence merit some compensation. It is idle to talk of the *honor* of the service, and equally cruel to say that it is their duty to do it. Every man's duty to others is limited and subordinated to his duty to himself; *semper tibi proximus esto*; and since no one can relieve all the misery in the world, and in attempting it would only impoverish and wrong himself, so it is a sufficient answer to say that the private practice of every practitioner generally makes a heavy enough draft upon his time and talents to meet every requirement of philanthropy.

We believe, therefore, in the obligation incumbent upon the state or county to remunerate, in some slight degree, those who do so much patriotic service in lightening the burdens of pauper-sickness which ever rest upon the state. We believe that, although many men do work well without pay, all do work better with it. Pay is oxygen to both muscular and intellectual exertion. It is a stimulant to effort—a tonic to flagging energy—the discutient and deobstruent of inertia, and the placebo for all services rendered. And it would be a source of pride to the community to know that, while in its hospitals pay was exacted and received from a large proportion of patients, thus exhibiting the doctrine of remuneration as towards the institution, those who formed its chief bulwarks and ministers—the souls and spirits without whose ministrations of skill neither walls nor beds, neither food nor shelter would bring relief to diseased humanity—that these noble men are not sponged upon under a false standard of honor for services which the world at large stands ready to reward with an unstinted hand. Let the Legislature, therefore, inaugurate a new day of justice towards those who, with so much self-denial, are daily serving the public, and daily, in the truest exemplification of Christian grace, performing

"A thousand, nameless, unremembered acts,
Of kindness and of love."

THE WEEK.

WE have received a circular from the "Miami Valley Medical Association," Ohio—a Society which "embraces the Great Miami Valley." It was organized in 1857, and incorporated in 1860, with power to hold property, grant

diplomas, and acquire facilities for scientific investigations, etc. The trustees of this Society have determined to establish a library and cabinet, and "in order to carry out these laudable designs," they make the following requests:—

"1. That the publishers of medical periodicals donate one copy of each number regularly, as published, to our library, which numbers are to be carefully kept by our librarian, and at the close of each year to be neatly bound at the expense of the Society, and exhibited to the members and public as a specimen of said publications. 2. That the publishers or authors of medical books, donate one copy of said books to the library of said society, for the purposes named above. 3. That the publishers of literary and scientific journals and books donate the same as requested of publishers of medical journals, for the same purpose. 4. That all who have anatomical preparations or specimens of Osteology, Geology, Mineralogy, Zoology, Ornithology, Entomology, &c., which they can spare, will please donate to our cabinet. In return, the Society will publish annually a complete catalogue of all donations, with the names of donors, and give it an extensive circulation; and all donors will thereby acquire a regular honorary membership of the Association. Thus by a slight gift on the part of each donor a large and valuable collection of literary and scientific publications will be collected and neatly preserved for a good and valuable purpose. Also, a beautiful and useful cabinet can be accumulated, where the donors may regale themselves at any time by a visit to our attractive and instructive collections."

We heartily approve the objects of this Association, while we as heartily dissent from the proposed mode of carrying "out these laudable designs." We venture to say that every member of this Association is opposed to free physic, because what costs nothing is lightly valued. We are in like manner opposed to free periodical medical literature, and for the same reasons. The subscriber who regularly *pays* for his medical journal derives far more benefit from it than one who receives it gratuitously, or is a delinquent. Again, the members of this Association are, we doubt not, opposed to gratuitous medical service, except as an act of common charity, because every man is entitled to compensation for his labors. For the same reason we are opposed to the gratuitous distribution of medical periodicals to medical men and associations. If there is any class of laborers in the field of medicine which deserves earnest, cordial, and unqualified pecuniary support, for services actually rendered, it is that devoted to the publication of medical journals. These periodicals are absolutely essential to the growth, the integrity, and even the existence of the profession, and yet they can never be remunerative to the proprietors, because their publication is expensive, their circulation limited, and *their losses from delinquent subscribers excessive*. There is no more humiliating aspect of the morals of the profession than that which the failure of some of our best medical journals exhibits. The touching appeals which they make to delinquent subscribers who have been the cause of their failure, and which ought to call forth generous contributions, are too often entirely unnoticed. During the past year several excellent journals have, for this cause, been compelled to discontinue.

These are our reasons for declining to become donors to this, or any other Society, whose organization is not for purely charitable purposes. One hundred dollars will furnish the Society with all the American medical journals, and if it is incapable of raising that amount, annually, towards a library, it is not a safe guardian of such collections as it proposes to make. It might be gratifying to the

proposed donors to such Library and Cabinet to "regale themselves at any time by a visit to our attractive and instructive collections," but such an event should be deeply mortifying to the members of a medical Society "embracing the Great Miami Valley."

While, therefore, we withhold the desired donation from a Society that ought to purchase whatever is needful to its improvement, we would not have it inferred that we decline to furnish this journal as a matter of charity, gratuitously. If the President will furnish us satisfactory proof that any members, especially young practitioners, are unable, after practising rigid economy, to pay for this journal, we will send them free copies.

A MEETING was recently held at Romsey, England, presided over by the Prime Minister, Lord Palmerston, for the purpose of considering measures for the improvement of the dwellings of the working classes. One of the speakers alluded to the Hastings Cottage Improvement Society:—

"It has now been in operation for about four years, and from its humble commencement by three or four resident gentlemen, who each contributed £100, and forthwith purchased a few cottages, which then were immediately put into a proper condition, and have been tenanted ever since, it has steadily advanced in extent and prosperity to the date of its last half yearly report in October, when the number of its shareholders was between fifty and sixty, and the capital invested was about £12,000. A dividend of six per cent. has been paid yearly, and, after discharging all of the expenses connected with the purchase and improvement of the property that has been bought, a reserve fund of nearly £300 has been accumulated."

This society, it appears, does not build new cottages, but aims to render those purchased more habitable, by the introduction of sanitary improvements, such as ventilation, drainage, cleanliness, supplies of fresh water, &c. The effects of this society's operations extend beyond the limits of their own possessions, for the neighborhood is influenced, and greater attention is given generally by the inhabitants to their homes. Lord Palmerston remarked, at the meeting referred to:—

"Nobody should run away with the notion that nothing can be done to improve the dwellings of the poor, short of building cottages which they may think too expensive for their means. Depend upon it that a very great deal can be done at a moderate expense towards making old cottages decent and habitable."

We are not surprised to learn that "the success of the Hastings scheme is mainly due to the clear-sightedness and unflagging zeal of an accomplished physician there, who, amid professional and literary engagements, has found time to supervise and direct its operations, with much signal success." Will not physicians residing in our larger towns, where the common laboring or manufacturing classes are generally compelled to occupy houses built without regard to the health of the tenant, recognise a duty which they, as versed in the laws of health, ought to discharge without delay? A society organized on the plan of the Hastings association, is remunerative to the shareholders, to an extent to render an investment in its stock desirable to capitalists.

RUSH MEDICAL COLLEGE, CHICAGO.—At the recent commencement of this College, thirty-six students received the degree of M.D. The Valedictory Address was given by Prof. Allen.

Reviews.

1. ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF BALTIMORE. Baltimore, 1861. pp. 32.
2. REPORT OF THE BOARD OF HEALTH OF PHILADELPHIA, FOR 1860; SANITARY AND STATISTICAL. In accordance with an Act of the Legislature, approved March 8, 1860, for the Registration of Births, Marriages, and Deaths. Philadelphia, 1861. pp. 87.
3. ANNUAL REPORT OF THE CITY INSPECTOR OF THE CITY OF NEW YORK, FOR THE YEAR ENDING DEC. 31, 1860. New York, 1861. pp. 264.
4. ANNUAL REPORT OF THE HEALTH OFFICER OF BROOKLYN, FOR THE YEAR 1860. Brooklyn, 1861. pp. 64.
5. REPORT OF THE HEALTH PHYSICIAN OF THE CITY OF NEWARK, TOGETHER WITH REPORTS OF THE DISTRICT PHYSICIANS TO THE BOARD OF HEALTH. Newark, 1861. pp. 35.

(Continued from page 214.)

THE Sanitary System of the City of New York is an anomaly. The Mayor and Common Council, "whose fame has gone out through all the earth," are the Board of Health. A Resident Physician, a Health Commissioner, the Quarantine Health Officer, the City Inspector, the Presidents of the two branches of the Common Council, and the Mayor, constitute a ministerial body called the Commissioners of Health. The City Inspector is the constituted head of the Sanitary Department. He nominally has charge of all that relates to sanitary inspection and civic cleanliness, the supervision of markets and inspection of all articles sold therein, together with all that relates to scavenging, offal removal, inspection of weights and measures, and the registration of births, marriages, and deaths. With all its checks, counter-checks, and complexities, this *insanitary* arrangement costs the city a round half million of dollars every year, and at the same time serves to perpetuate a state of public insalubrity that gives to New York the ignoble reputation of the highest death-rate of any large city in the civilized world.

The Annual Report of the City Inspector makes imposing pretensions. Its main design is to cover the rottenness and incompetency of the Health Department of the City Government. But the statistics of the Bureau of Registration furnish ample testimony to the criminal inefficiency of the system, which every year requires a ponderous volume to show how and why the inhabitants of this favored city are destroyed at the rate of from thirty to thirty-five in every thousand annually. But it is manifest that the City Inspector is utterly ignorant of the real causes of our excessive mortality, though his Report does contain some sensible statements respecting stables, swill-milk, and garbage. It is when he attempts to speak of the leading sources of insalubrity that the insufficiency of a mere huckster's education appears in the Chiefs of the Sanitary Bureau. Listen to the Inspector's suggestions on the subject of the unparalleled mortality among children in our city.

"And how is this state of things, which marks with shame the City of New York, to be remedied? The power of remedy does not rest with me, nor in the department over which I have the honor (?) to preside, but is to be found in the erection of hospitals."

This is a fair illustration of the lamentable stupidity which characterizes all the plans and suggestions that emanate from the City Inspector's department; and as we have noted some of these things in a former number of the Times, we will not inflict further quotations upon our readers, but will only refer to some of the statistics, hereafter, in a summary table of comparison.

There is a feature of this Report which is truly creditable. We refer to the admirably arranged and very complete Meteorological Register, which we learn was recorded and prepared by the Resident Physician of the Eastern Dispensary.

sary, DR. JONAS P. LOINES; complete readings of the barometer, hygrometer, temperature, wind, and weather being made thrice daily, with daily summaries of their means, &c. A noticeable peculiarity of our New York climate is observed to be an extremely wide range of the degrees of difference between the wet and dry bulbs of the hygrometer, with only a moderate diurnal range of temperature; e. g. on the 28th of June the readings were, at the hours of

	6 A.M.	and 2	and 10 P.M.
Thermometer . . .	71°.	84°.	81°.
Difference in bulbs . .	9.	18.	8.

For a maritime city the atmosphere of New York is remarkably dry, the mean temperature of evaporation unusually uniform, the average amount of cloud a minimum for the Atlantic coast, and the diurnal range of temperature very moderate; thus constituting a climate unsurpassed for its salubrity. Shame be to the municipal officials who blindly persist in making gain by death and disease in such a city.

We have already mentioned that the annual expenditures of the Municipal Bureau of Health and Cleanliness amount to half a million dollars; and even this enormous sum fails to secure either cleanliness or salubrity. A former chief of the department once gave his testimony to the fact that the loss to the people by preventible disease in this city exceeds *thirteen millions* of dollars annually. To this should be added at least another million for needless burdens inflicted by our quarantine system. This is the cost of not being permitted to have medical knowledge and sanitary science in the Health Department!

That a Department of Health, which by virtue of its power, patronage, and corruption, can on a day's notice raise from ten to fifteen thousand dollars to prevent legislative reform of its abuses, should make the following announcement of its estimate of sanitary science, is certainly very natural:

"Nor is it necessary for the further efficiency of this department that it should become the *nursery of students of medicine*—a plan suggested by the physicians of this city, who seem anxious to convert the department into a medical seminary."

We gladly turn to the examination of the Brooklyn Health Officer's Report. DR. JONES has evidently endeavored to discharge his duty as a medical officer, and in the very opening of this budget of statistics he declares to the mayor and council that "the bill of mortality and death rate is too large."

Brooklyn has its Health Officer, who is a physician appointed by the Mayor; but the Board of Health, which is constituted by the Common Council, retains in its own hands all the power of enforcing and devising sanitary regulations; therefore that official holds the position of a registrar of vital and mortuary statistics and scientific adviser to the city fathers.

It is not the fault of DR. JONES that last year one person out of 36.7+ in Brooklyn became a silent inmate of its cemeteries. The health officer has been ignobly deprived of all power and means for protecting and improving the public health—even the few health wardens of his predecessor have been taken from him.

Among the many valuable suggestions contained in DR. JONES's Report, are some practical hints relating to the economics of medical relief to the poor. He shows that the average cost of maintaining each patient in the Almshouse Hospital of Kings county, is \$16.50; in the Brooklyn City Hospital, \$14.89; while in the five Dispensaries of New York, the cost of each patient is *less than eighteen cents*. The argument he presents in favor of a liberal and systematic support of public dispensaries is conclusive. And he justly says:—

"Abolish dispensaries, and our city, before anything could be substituted in lieu thereof, would be converted into an immense lazaretto, and our death rates would appal the strongest record and stoutest hearts."

In adopting and recommending all the practical details

of the "*Metropolitan Health Bill*," the Brooklyn health officer pays a merited compliment to the sanitarians who have brought forward that measure. How different from the cynical and base insinuations of the New York inspector! May the "*Metropolitan Health Bill*" become a law, and may the Brooklyn health officer continue to serve the public under its comprehensive provisions.

This Report has some important suggestions regarding small-pox and its prophylactic. And as its statements on the subject of providing fresh virus from the cow have evidently been misunderstood, as they are, by a strange lapsus, mis-stated in the report, we hope DR. JONES will be pleased to favor our readers with a special statement of his views on that important subject. He believes it advisable to keep cows continually (successively?) under inoculation for the purpose of supplying the vaccine virus. This moot question is not to be settled by ridicule, nor by the foolish assertions of the National Vaccine Board of Great Britain that the vaccine lymph offered by them preserves its original efficiency after passing "through nearly a million of subjects successively." Dr. Estlin of Bristol, who has given much attention to this subject, and at various times provided fresh virus from the cow, has shown how unworthy such statements are.

But we must hasten to notice the evidences of interest in health by the public authorities of the manufacturing city of Newark. Situated at the head of a narrow bay that is flanked by malarious marshes, the city of Newark is not most favorably located for salubrity. And we find in this Report that intermittent fever stands only fifth in the long catalogue of diseases reported by the Dispensary Board. Bronchitis gave the highest ratio in that catalogue, diarrhoea second, and rheumatisms third.

The Newark Board of Health consists of the Mayor, three Aldermen, and the Health Physician; and that Board, acting with the Board of Dispensary Physicians, constitutes the Dispensary or Hospital Board. The constitution and functions of these Boards are unique, and they appear to work harmoniously and efficiently. The essential and more constant labors of the Board of Health are merged in those of the Dispensary Board. This is as it should be, and if we do not misjudge, that busy city will soon have one of the most efficient and economical sanitary systems that can be found. It is a working plan, and is manned by competent medical officers. The Health Physician, DR. NIENOLS, speaking officially, says—

"The Board of Health have a plain duty to fulfil. They are the custodians of the public health. It is their duty—like that of the true physician—not so much to cure disease as to prevent it. If any severe epidemic occurs in our midst, through our neglect or inefficiency, much, much will be required at our hands, by an indignant populace. The building of tenement houses, the erection of workshops, the disposal of the dead, are as much under our charge as that of the disposition of filial, or the care and vigilance exercised that no epidemic gets a foothold among us. Let us proceed judiciously, yet firmly, in the course marked out by the hand of sanitary science."

This is the true faith of physicians and sanitarians, and the Newark Sanitary and Hospital Boards show their faith by their works. We are glad, also, to see that those Boards are alive to the importance of providing enlarged hospital accommodations in their city. Strange it seems that a city of more than seventy thousand inhabitants, largely mechanics, should have possessed no hospital until these Boards were organized a year or two ago.

Deferring our notice of the Sanitary Returns of Boston, Providence, and the southern cities, we will also defer the presentation of a comparative summary of the vital statistics of the several cities whose Health Reports have reached us. For the sake of the reputation of New York and Brooklyn, we would gladly omit that summary, for it shows, by mathematical demonstration, that in this emporium of the nation, death finds the largest harvest—the highest ratio of mortality of any cities in Christendom.

Progress of Medical Science.

Chlorate of Potash in the Treatment of Phthisis, Scrofula, and Other Diseases.—Dr. E. J. Fountain, of Iowa, reports in the American Medical Monthly, several cases treated by the chlorate of potash in corroboration of his belief that the unpleasant effects which some have observed to follow its administration are due, in a great measure, to the impurity of the drug employed, and in some degree to an injudicious method of administering it. Since he has commenced using the French preparation of absolute purity, he has not known a single instance where it has produced either diarrhoea or loss of appetite. A brief abstract of his cases will illustrate the difference in effects of this and that ordinarily sold by druggists.

CASE 1.—Physical signs plainly indicated tubercles in both lungs, with cavities in the left. Prescribed chlorate of potash in drachm doses, three times daily, when increase of appetite, diminution of expectoration, relief of oppression and dyspnoea, and general improvement followed. If the treatment was suspended for a few days the unpleasant symptoms were aggravated, but soon subsided on resuming the medicine. The treatment was continued for over two months, "at no time producing either diarrhoea, nausea, or a sense of loathing." At length the patient was so much improved as to venture upon a long walk, which so overtasked her strength that she never entirely recovered from the extreme prostration which followed. Soon after this, the chlorate began to disagree with her, when it was found that the last package she obtained was inferior to that previously employed. The druggist being out of the French preparation had obtained a supply from a neighbor, which proved to be impure, having a nauseous taste, offending the stomach, and did no good. The following was his method of prescribing.—Potass. chlorat. pulv. $\frac{3}{4}$ vj. ft. ch. No. xvj., one powder to be taken each day in three doses, each extemporaneously dissolved in a sufficient quantity of hot water; the first dose in the morning to be taken after breakfast.

CASE 2.—Phthisis.—Ordered $\frac{3}{4}$ ij. of saturated solution (one drachm of the chlorate) three times a day, after meals; rapid improvement followed, with corresponding change in the physical signs; medicine tolerated for several weeks, increasing the appetite and powers of digestion. **CASE 5.**—Chronic eczematous eruption, for which was prescribed a wine-glassful of the saturated solution, morning and evening. A few weeks afterwards the patient stated that he felt greatly relieved of a pulmonary difficulty which had been gradually increasing upon him for years, which, however, he had not mentioned when he first came under treatment; and having no previous knowledge of the properties of the chlorate, there was no room for deception.

CASE 6.—A girl aged 12, with foetid discharge from the ear, since the age of 11 months. Iron, iodine, cod-liver oil, iod. of potassium, had been prescribed at different periods without any material benefit. After taking three tablespoonfuls of the saturated solution, morning and evening for about two weeks, the discharge entirely disappeared.

CASES 7, 8, 9, 10, and 11, were generally of a strumous character, and improved under the same treatment, the medicine not offending the stomach, but on the contrary improving the appetite and digestion.

CASE 12.—Carbuncles. Prescribed half an ounce of the chlorate daily, and in a few days was informed that it tasted repulsive, produced diarrhoea and nausea. Upon examination this was found to be impure, and another package ordered from a place where none but the French chlorate is kept. This was not nauseous, produced no diarrhoea, and at the time of writing the patient was recovering on its use. **CASE 12** is a complete recovery of a bad case of morbus coxarius in a little girl of six years. A tablespoonful of the sat. sol. was given three times a day until

the cure was effected. Dr. F. concludes his paper by insisting upon the necessity of obtaining a pure article, and not unjustly condemning it, because there is much that is impure in the market. He does not pretend to say that none but the French chlorate is perfectly pure, but he knows of no other that he can depend upon. "It is in small scales and flakes, of brilliant appearance and pearly whiteness." In using it, he makes a saturated solution in hot water, which cooling, some of the salt is precipitated, leaving in solution about one ounce to the pint, or one drachm to two ounces, which he prescribes in appropriate doses without further dilution.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

(Concluded from page 200.)

FIBROID DEGENERATION OF THE UTERUS, STOMACH, AND OVARIES, PERFORATION OF UTERINE WALLS WITH THE SOUND, AND HEALING OF THE WOUND WITHOUT PERITONEAL INFLAMMATION.

DR. KRACKOWIZER presented three specimens, consisting of a stomach, uterus, and left kidney, which had been taken from a woman who died three days before. He gave the history as follows:—I was called to see a lady in consultation on the 21st of December. She was thirty-five years of age, and had always been healthy. She had an older sister who had been married for a good many years, and has seven children. She herself was delivered five times, and it appears that on each delivery there was a transverse position which necessitated the performance of version; when the child was still-born. Her physician being aware of that fact, during her last confinement was prepared to effect the turning as rapidly as possible, and succeeded in bringing away a living child. She was determined to keep that child, and so endeavored to place it in the best possible condition to guard it against the usual diseases of childhood. Accordingly she nursed it for twenty-two consecutive months, and weaned it only at the commencement of last September. Of course, during the last month of the time, she became very much debilitated. She had seen what she thought to be her menses, in April last, but never since. Just previous to the weaning of her child, she noticed a swelling of the cervical glands on the left side; at the same time she complained of pain in the pit of her stomach, and she was taken with what appeared to be intermittent fever, which disease rapidly yielded to the appropriate treatment by quinine. She appeared to be somewhat better during the month of September, yet she would have these apparent attacks of intermittent fever irregularly, and they became rebellious to treatment. She became much weaker, her appetite became capricious, vomiting occurred from time to time, and she considered herself pregnant. Her physician was inclined to think so, and was consequently indisposed to enter into a regular treatment for her complaints. She grew worse, and he felt that he had to make a more thorough examination; placing his hand upon the abdomen found a tumor above the pubes, and thought it to be an impregnated uterus, but stated to her that he could not make a sure diagnosis unless she would consent to a vaginal examination. It appears that during November and the first half of December, she had been under the hands of an empiric, the consequence of which was that she ran down very rapidly. The attending physician saw her again on the third week of December, and she was then in the condition in which I found her when called in consultation. She was extremely emaciated, her countenance was sallow and of a greenish color, there was constant hectic, the vomiting was very frequent, but consisted of nothing more than the contents of the stomach. She could retain only the mildest nourishment. The cervical glands in the upper and lower

triangle were enlarged, but not hard; they felt very much like hypertrophied glands. The liver did not seem to be enlarged in size, and the spleen could not be detected by palpation nor percussion. The pit of the stomach did not protrude, but there was a fixed pain in that locality which did not permit any rough handling or pressure; consequently no tumor was detected. The lungs and heart were healthy. To all appearances the left of the hypogastric region was taken possession of by a tumor somewhat rounded in shape. The more thorough examination of the tumor and adjacent parts was delayed until a vaginal examination could be made. On introducing the finger, the os felt natural in size; cervix somewhat shortened but not enlarged, and there were several small rounded tumors imbedded in its substance, and underneath the mucous membrane where it reflects from the surface of the vagina. These tumors were about the size of a hemp-seed or small pea; they felt equally round and hard, and seemed to be imbedded half way in the substance of the neck, pushing forward the mucous membrane. On introducing the speculum, the color of the cervix and vagina was found to be normal, with the exception of these small tumors, which presented a yellowish appearance. The mucous membrane as it enters the os was somewhat reddened and swollen, and a sero-purulent substance flowed out from the opening. *On introducing the uterine sound it passed with great facility through the internal cervix, a distance of six inches.* I felt the knob very distinctly through the abdominal walls, and the tumor was felt to the left of it. On handling the tumor it could be moved independently of the sound in different directions. I must mention that the tumor did not elicit any pain nor did the sound produce any unusual unpleasant sensation. On examining through the rectum, a hard nodulated tumor was discovered behind the uterus, which seemed to be in connexion with the one above the symphysis. Keeping the finger of one hand on the cervix and making depressing motions through the abdominal walls with the other, these motions were sensible to the finger in the vagina. The diagnosis I was somewhat doubtful how to make. There was certainly painted on the patient's looks the color of deep cachexia, as we see it in malignant disease. There was this swelling of the cervical glands, there was a tumor apparently unconnected with the uterus, or if connected, only by a pretty distinct pedicle above the symphysis. The finger and speculum revealed the existence of those small rounded tumors in the cervix, which, from their feel and their color, favored the supposition that they were fibroid in character. From this I concluded that the larger tumor was of this character. I strengthened this view by the fact that the abdominal tumor was not painful, and could be moved in all directions. I hence concluded that such was the character of the tumor, that it had pushed the peritoneum before it, and had become somewhat pedunculated. The enlargement of the cavity of the womb I thought I might attribute to the enlargement of the uterus itself, as is generally the case when it is the seat of such growths. Although I was somewhat surprised that the sound should enter the cavity with such facility, I thought it was not improbable the woman was pregnant, and that the sound had entered the cavity between the walls and the membranes, and I mentioned to her attendant that if such were the case, she would probably abort in a few days. Having made this diagnosis, we still thought that there was a possibility of the existence of some hidden cancerous disease which produced the cachexia, and as a secondary affection, the enlargement of the glands of the neck. Merely palliative treatment was instituted. The symptoms, as the case progressed, did not differ from those already described, and the patient sank gradually, and died on the 20th of January.

Autopsy.—Yesterday forenoon the post-mortem examination was made. The abdominal cavity only was opened. A tumor was noticed to the left of the median line of a more or less rounded appearance, whitish color, and cartilaginous feel. I must state that no abortion took place, and

the woman never lost any blood from her genitals. To my utter astonishment I found the uterus of a normal size, and the walls apparently as firm and unyielding as we ever see them. It was difficult for me to explain this. The specimen showed that *the sound had passed through the fundus, and the wound had healed without the least trouble.* This tumor was found adherent to the left fallopian tube, which ran in an oblique direction upwards and outwards, where it was bound down by adhesions. It also sent a prolongation, a sort of bunch, down in the recto-vaginal fossa, which was the mass felt through the rectum. No ovary was found upon this side. On the right side there is a small tumor of the same consistency, only a little more lobulated, and which was situated a little outward, and behind the uterus. The nodules could still be felt at the point of reflection of the mucous membrane from the neck of the womb to the vagina. On making the examination of the stomach and liver, it was found that the commencement of the transverse colon, and the pylorus, were fixed by false adhesions to the transverse sulcus of the liver, and by this adhesion the transverse colon had somewhat bulged out, and expanded by gas, and pressed so much upon the organ that it had squeezed out its liquid contents, and gave it an almost membranous appearance. On slitting open the stomach, its walls were found infiltrated, but it was seen that the mucous membrane was nowhere in an ulcerated condition, although there were left cicatrices upon the surface. The membrane was also somewhat protruded on account of the nodules underneath. The pelvis of the left kidney, probably from pressure on the ureter, was very much dilated, and so were the calices. The substance of the kidney proved that there was some atrophy of the granular substance. The post-mortem showed an error in the diagnosis that, whereas the tumor was held to be uterine, pedunculated, and fibroid in character, it was a degeneration of the ovaries. The degeneration of the stomach was suspected during life, but for reasons that I have stated could not be felt. On cutting open the tumor it was found to be hard, and gave that peculiar "crying noise." The left ovary was of the same character, and upon one spot in the midst of this substance was imbedded a still more resistant and elastic nodule, which had all the appearance of a fibroid tumor. On splitting open the uterus, it was found that its walls were marked by a whitish substance which showed the commencement of fatty degeneration. These white marbled spots seemed to surround the laminae of the vessels. The uterine cavity had the usual length of three inches; there were then three inches wanting where the sound had passed in some other than this cavity. The specimen showed that the sound passed through the uterine walls. Near the left cornua of the uterus is seen a funnel-shaped opening which enters the substance of the uterus, and conducts to a spot on the peritoneal lining of the fundus a little posteriorly, which is marked by a small reddish spot like a cicatrix. *There are no traces of peritoneal inflammation in the neighborhood, neither does there seem to have been any effusion of blood attendant upon the injury.* I thought at first that I had been mistaken in my diagnosis, in every point, by the seat as well as the character of the tumor; I thought, when I had finished the post-mortem examination, that this was hard cancer; that it might have originated at the same time in the stomach, and both ovaries, and that the affection of the cervical gland was secondary; but after microscopic examination, I am of the opinion that this idea of the cancerous degeneration of the tumor cannot be sustained. If we understand by carcinoma, a new cell formation, with a tendency to multiplication, then this is not cancer; for it is formed entirely of fibroid cells. It consists of elongated fibres with nuclei, which are either round or elliptical. I have taken one specimen from the stomach, and found exactly the same arrangement of microscopic texture; two specimens were also obtained, one from immediately beneath the mucous membrane, and another from the muscular striae. In none of these could I detect a single cancerous cell.

A HISTORY OF THE MEDICAL SOCIETIES OF NEW YORK CITY,

READ BEFORE THE NEW YORK MEDICAL UNION, DEC. 1860.*

By ALFRED L. LOOMIS, M.D., President of the Society.

GENTLEMEN:—One of the most important events in the history of modern medicine was the formation of the Royal Society of London, in the year 1645—the first medical society constituted out of Italy. In the eighth century, all learned societies were sacerdotal in their origin, being connected either with mosques, monasteries, or collegiate churches. In the thirteenth and fourteenth centuries they appeared as universities, yet under the protection and control of the church. In the sixteenth and seventeenth centuries, medicine had so widely extended its limits, that it required special institutions for its development. The theologians were still predominant in the universities, and fettered inquiry. Medicine wanted freedom. Hence, at the height of the great civil war, some of the most distinguished in the English medical world banded themselves with other investigators of nature, and established the Royal Society of London—"The head and home of modern medicine and natural science." At its foundation, practical and experimental medicine received its first impulse, and soon assumed its position as a distinct science—untrammelled by church or state. Kindred societies, purely medical in their character, were soon established, to which we owe much that has elevated and advanced our profession. But as I have neither time nor the material to give you true histories of their labors, I will rather invite you to medical societies, as they have existed in our own city. In which labor I have been greatly assisted by the venerable John W. Francis.

So early as 1742 and '43, upon the appearance of yellow fever, as described by Corden, a medical society was formed in New York, in which the medical faculty of Columbia College (then called King's College) was organized. No publications emanated from this society. In 1768, evidences exist, that there was a union among medical men to promote scientific medicine. But at that period, in order to secure the power to exercise the healing art, the candidates for that distinction made application to a county judge for permission to enter the list of doctors. This circumstance was unquestionably a reason why we have recorded, or hear so little concerning medical societies, until the formation of the Medical Society of the State of New York, in the year 1793, Dr. John Bard being its first president. Dr. Bard made his administration renowned by his ability, his firmness, and his great decision, that *yellow fever* was then prevailing in New York. From the recorded evidences, it appears that a suspicious case of fever was reported to the constituted authorities (at that time composed of gentlemen of the legal profession); the matter was referred to the Medical Society of the State of New York; the members were divided—a large majority affirming that the case was only one of common bilious fever. Dr. Bard had prepared himself for an answer, by previous ocular inspection. "Whatever may be the decision of this meeting," said the Doctor, "the disease is yellow fever, such as I have seen fifty years ago; and, gentlemen, you will all be convinced within a few days." His prophecy was fulfilled; for the pestilence of 1795 is recorded in many volumes. This Society published many papers on yellow fever, and a volume of Transactions.

We find few or no details concerning medical societies in the city or state after this period, until 1807, when, by special enactment of the Legislature, county medical societies were formed throughout the States; also the State Medical Society, which was organized principally by the exertions of Dr. John Stearns, a man of erudition, and a writer of ability. This year was also rendered remarkable by the establishing of the College of Physicians and Sur-

geons, upon the recommendation of the regents of the University. The County Medical Society of New York took in by wholesale, all existing practitioners of medicine in the city, as members. The famous Nicholas Romaine was elected its first president. This organization still exists, in common with those of other counties; and though it has proved inefficient for its great designs, it has published a System of Medical Ethics, and several reports on fevers and pestilence, of value.

The societies I have thus far recorded, were the offspring of legislative enactments; but many formed by voluntary association have existed, and do still exist.

The first in order was the American Æsculapian Society, established by the students of the medical faculty of Columbia College, in 1806. Its duration was for six or seven years. The avowed object of the organization was the promotion of medical and surgical science, by the reading of original papers, and by discussions on contested subjects. This Society published an annual report of its proceedings.

Next in order was the voluntary association called the Medico-Chirurgical Society, established in the fall of 1807, soon after the opening of the first course of lectures in the College of Physicians and Surgeons, when the talented Romaine (the first president), Dr. Miles, Dr. John Augustine Smith, Dr. Hosack, Dr. DeWitt, Dr. Bruce, and Dr. McNiven were teachers. This Society existed about twelve years, and published an annual report of its proceedings, which were, indeed, similar to those of the Æsculapian Society. Among its presidents are recorded Drs. Francis, Mitchel, and Hosack. The union of the faculty of Columbia College with that of the College of Physicians and Surgeons, led to the formation of no new medical societies.

In August, 1815, several of the then young members of the medical profession, viz. Drs. Valentine Mott, Samuel B. More, James C. Bliss, Joseph M. Smith, Ansel M. Ives, Edward C. Post, Henry Fish, Cornelius De Puy, and Guy C. Bailey, formed themselves into an association called the Physico-Medical Society. Dr. Valentine Mott was the first and only president of this Society. The Society existed five years. Its principal object was the reading of original papers. It published a large and valuable volume of Transactions, which met the approbation of Abernethy of London. In this volume is to be found Dr. Mott's paper on Pulsation in Epigastrium; Dr. Wright Post's Operation for Carotid Aneurism, reported by Dr. Mott—the first successful operation of the kind in this country; a Paper by Dr. Joseph M. Smith on the Efficacy of Emetics in Spasmodic Diseases, and many other papers of exceeding merit.

There is no record of the existence of any other Medical Societies until the year 1823, when the K. A. Society was established by Dr. Alex. H. Stephens, G. Smith, T. Cook, and Joseph M. Smith. This organization was secret in its character, of which there were branches throughout the United States. The mother chapter of this society was organized by Dr. Samuel Brown at Lexington, Kentucky. The avowed object of this society was the promotion of good fellowship in the profession, and the advancement of medical science among its members. Under its auspices the North American Medical and Surgical Journal, a quarterly, was published from 1826 to 1830, conducted by Drs. H. Hodge, Bahe, Chas. Meigs, and LaRoché. This society still exists.

Next in chronological order, we find the New York Medical and Surgical Society, which was organized in 1834 at the New York Dispensary, by Dr. John Watson, J. G. Adams, H. D. Bulkeley, and Swett. It held its meetings semi-monthly at the Dispensary until 1836, when it was reorganized in the library rooms of the New York Hospital, where for ten years its meetings were held, at which papers were read and discussions held on medical and surgical subjects. During this time it was eminently a working society, and published many valuable papers. In this society the first discussion on Homœopathy was had about 1842. It arose from a paper presented to the society by Dr. McVickar, which contained many mis-statements or

* Published at the request of the Society.

exaggerations in relation to the success of Homœopathy in the treatment of disease. A committee was appointed from the society, whose investigations and report led to the resignations of Dr. McVickar, Dr. Wright, and Dr. Ticknor. In the year 1844, the meetings of the society began to be held at the house of its members, and in a few years it became almost entirely social in its character; as such it still exists.

In 1843, the "Harveian Circle" was organized; a club having for its object social intercourse and the promotion of the professional advancement of its members. Its founders were Drs. Isaac Wood, J. Green, Underhill, Van Kleeck, J. R. Wood, Goldsmith, and Rockwell. At the meetings of this society eases are related which have occurred in the practice of the members, and papers are read on medical and surgical subjects. A circulating periodical library is attached to this society, which is supported by a tax on each member. No publications have ever emanated from this organization.

During the summer of 1844, at the call of Drs. Sayre and J. C. Peters, there met at the house of Dr. Sayre, Drs. Thomas F. Cock, Markoe, Robt. Watts, Roberts, Tomes, Youngs, McNivens, and J. C. Peters, and organized the New York Pathological Society. For a time the meetings of the society were held at the office of Dr. Sayre, subsequently at the houses of its members. Since the autumn of 1844 its meetings have been held at the College of Physicians and Surgeons. The object of this society is the improvement of its members in Pathology, and in the Diagnosis and Treatment of diseases as founded on Pathology.

Its first president was Dr. J. A. Swett. Its monthly reports have been and continue to be published in the medical journals of this city. This society at present numbers 180 members.

At a numerously attended meeting of the regular practitioners in the city of New York, held December 12, 1846, at the Lyceum of Natural History, pursuant to a call from Drs. Alexander Stevens, Valentine Mott, and Isaac Wood, it was agreed that an association of all the regular practitioners of medicine and surgery should constitute an Academy of Medicine; the object of which should be to elevate the character of the whole profession, advance its interests, and increase its usefulness. The committee on organization and for drafting a constitution were Drs. John Stearns, Bliss, John Watson, Griscom, Drake, Reese, Purdy, J. R. Wood, and Tomes. On the 7th of January, 1847, at the Lyceum Hall, this committee reported a constitution, which was adopted, and a complete organization of the New York Academy of Medicine was effected. Dr. John Stearns was elected the first President. The Academy is divided into six Sections, viz. 1. A Section of Anatomy and Physiology; 2. Of Surgery; 3. Theory and Practice of Medicine; 4. Obstetrics and Diseases of Women and Children; 5. Chemistry, Pharmacy, Materia Medica, and Botany; 6. Public Health and Legal Medicine. Each Section makes quarterly reports, and some of them may almost be considered separate organizations, especially the Surgical and Obstetrical Sections.

Since the primary organization of the Academy it has been reorganized twice. The original constitution adopted by the committee originated with Dr. Reese. The present objects of the Academy, as recorded, are:—

1. The Cultivation of the Science of Medicine.
2. The Advancement of the Character and Honor of the Profession.
3. The Elevation of the Standard of Medical Education.
4. The Promotion of the Public Health.

This Society has published its transactions at irregular intervals since its organization; in which are to be found many valuable papers—the one deserving particular notice is that of Dr. C. E. Isaacs, on the Minute Anatomy of the Kidney.

In 1848, "The Society for Medical Inquiry" was organized by Drs. J. P. Batchelder, F. U. Johnston, S. Conant

Foster, J. O. Stone, William H. Van Buren, J. P. Garish, and S. S. Purple.

This organization is social in its character. Its membership is limited, and its meetings are held at the houses of its members.

At the invitation of Dr. J. O. Pond, in January, 1849, there met at the house of Dr. Pond, Drs. Joel Foster, J. Van Pelt, J. Hubbard, and J. J. Clements, and organized the "New York Medical Association," with "the object of mutual improvement in medical knowledge and a more intimate social intercourse." Dr. Pond was elected the first President of the Society. No Transactions of the Society have ever been published. Eating, drinking, and smoking are strictly prohibited at the meetings of this Society, which are held at the houses of its members.

In May, 1859, Drs. R. Nelson, T. and P. Dewees, J. H. Douglas, John O. Bronson, Horace Green, A. K. Gardner, John W. Corson, J. W. Richards, Charles Brueninghausen, E. R. Peaslee, Joseph Worster, and Joseph Martin, met and organized the Medico-Chirurgical College of New York. This Society was organized with the avowed object, "The Promotion of Medicine and Surgery and the branches of Science allied therewith." It is composed of resident, non-resident, and honorary Fellows. It recognises the code of ethics of the American Medical Association. It meets semi-monthly at the houses of its members. A chairman is chosen every meeting, instead of having a permanent President. Papers of value have been issued under its auspices, and preparations are being made for a regular issue of its proceedings. Present number of members, twenty-five.

Turning to the records of our own Society, I find that in the autumn of 1853, Drs. Elsworth, Elliot, E. Lee Jones, F. Elliot, Stephen Smith, and O. P. Stall, met at the office of Dr. E. Elliot, and organized the "New York Medical Union," with the motto, "in union there is strength." The object of the organization was improvement in the Science of Medicine and General Literature, by the presentation of papers on any matter connected with medical or scientific subjects: the narration of cases; the exhibition of specimens, instruments, and books, with such discussions as may arise. Dr. Elsworth Elliot was the first President. Its membership has been confined to the younger members of the profession. Original papers read before the Society have been published in the medical journals of the city. In 1854, a periodical Book-Club originated—the journals, after being read by the members, becoming the property of the Society. Our present number of members is twenty.

Medical News.

DEATHS.

JONES—At Baldwinsville, Onondaga co., N. Y., on Friday, March 29, DANIEL T. JONES, M.D. Dr. JONES was an eminent citizen of Central New York; he served two terms in Congress from Onondaga county; was President of the State Medical Society in 1860; and has occupied various important positions.

UNIVERSITY OF MARYLAND.—The fifty-fourth annual commencement of the Medical Department was held by authority of the Provost and Board of Regents, on Saturday, March 2. Professor Miltenberger, Dean, read the mandamus; Professor Smith conferred the degree of M.D. upon sixty-three graduates, and presented their diplomas. Prof. Hammond delivered the Valedictory Address to the graduates.

SAVANNAH MEDICAL COLLEGE.—This school held its commencement on the 1st of March, when fourteen graduates received diplomas.

Original Lectures.

LECTURES ON DIPHTHERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M. D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE II. PART II.

Diphtheria with typhoid fever.—Symptoms reviewed, vomiting in the advanced stages a bad symptom.—Membrane, the time of its occurrence, its recurrence, its color.—Convulsions as an early symptom.—Pulse frequent, infrequent, and irregular; the irregular the gravest prognostic.—The soreness of the throat often inconsiderable.—Aphonia not constant in tracheal diphtheria.—Croupy cough almost but not absolutely constant.—Delirium.—Fetid breath not a common symptom.—Diarrhoea a bad symptom.—Albuminuria.—Tumefaction of the fauces causes dyspnoea.—Coma.—The disease probably communicable, Bretonneau's doctrine of literal contagion not generally adopted.

AMONG the specimens of diphtheria exhibited to you the present session, you will remember the tonsils, uvula, larynx, trachea, and fine divisions of the bronchial tubes of an adult lined by false membrane. The patient from whom the specimen was taken had been suffering from typhoid fever for two weeks at the New York Hospital, when he was attacked with symptoms of croup, and died in a few days, tracheotomy having been unsuccessfully performed. Several cases of a similar character were seen at the same hospital during the epidemic of typhus some years ago, in patients affected by that disease. It seems to have occurred in these cases after the completion of the second week of the fever. M. Louis (Arch. Gen. de Med., tom. iv., 1824) has reported two cases of membranous exudation in the air-passages, and the usual symptoms of diphtheria in patients having typhoid fever. One was a person twenty-three years old, who had been fourteen days in the hospital before the symptoms of the membranous disease began. The other was in a boy aged fifteen years. Dr. Greenhow (On Diphtheria, p. 76) reports that Dr. Heslop, of Birmingham, found in Nov., 1858, that of four cases of typhus fever occurring in one house, two of the patients had membranous exudation in the throat. In one of these it is stated that the patient, a girl aged seven years, had suffered nearly a fortnight before the appearance of the throat affection. In the other case the time of the occurrence of the latter is not mentioned. M. Louis's cases are described under the title, croup in adults; but as diphtheria was prevailing in Paris at the same time, it is more reasonable to refer them to this class.

Thus, gentlemen, from these cases and statements, you may form some idea of the length and breadth of the influence of this disease.

I shall now call your attention again to the symptoms, and enlarge a little upon some that have been already referred to, and speak of one or two that have not yet been named. I have told you that *vomiting* is not unfrequently an early symptom; as an early symptom, it is not of very great importance. It occurs also frequently in the latter part of the disease, and then it is not unfrequently of considerable moment, as it interferes with the regular administration of the means on which you have relied for recovery. As a rule, children vomit easily, and they are less exhausted than adults; yet it is an unfavorable symptom, inconvenient in every respect, and exhausting even in them. Its disastrous influences may be better appreciated if I give you a synopsis of a case of Dr. Thayer, as recited in the excellent paper in the first number of the *Berkshire Medical Journal*, just issued. In 1857, a patient thirteen years of

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age had very moderate diphtheritic inflammation of the fauces. Partial improvement nine days after attack; rode to doctor's office on the fifteenth day; again confined to house; soon to her bed; the throat but moderately swollen, but the false membrane continued; vomited daily, with daily increasing weakness; at length very restless, and on the twenty-fifth day in her uneasiness got out of bed, and died of syncope a few minutes after. She had had no hemorrhage, and no laryngeal diphtheria, but the vomiting could not be controlled, and she grew weaker and weaker under its influence.

It was but yesterday, in the practice of Dr. Blakeman, that a child about five years old, that had been suffering for about a fortnight with diphtheria of the fauces, without any alarming symptoms, began to vomit. The vomiting was not readily controlled. No food or medicine could be retained. We resorted to nutritive injections, but last night she sank into a kind of syncope and died. There was no dyspnoea, no hemorrhage, and yesterday morning no alarming frequency or irregularity of the pulse.

In regard to the time of the occurrence of the membrane, this varies exceedingly in different cases; in general it appears on the second or third day of the febrile movement, when there is a febrile movement; but in other instances it will be delayed to the fourth, fifth, and sometimes as late as the tenth or fourteenth day, there being a little febrile action all this time. Such a case I saw quite lately in a lady forty-five years of age, the wife of a physician. For nearly fourteen days she had suffered from sore throat, that annoyed her very much, altering her voice considerably. At the end of that time the membrane formed for the first time upon the epiglottis, making a sort of glove or cap for it. It was arrested, however, at this point, and did nothing more than put her to a great deal of inconvenience and alarm. She recovered readily.

The disposition of this membrane to *recur* is one of the most striking things in its history. It will be renewed two, three, or four times in the first ten to twenty days, and as it is reproduced, often extending. At other times you will see it exfoliate, and show no disposition to return whatever. If it were possible to fix a period of average duration, I think it would vary little from ten days. The color of the membrane is very variable. Often at the beginning it is of snowy whiteness, or in thin layers translucent; as it increases it assumes a yellowish hue, or an ash color, or if blood or ferruginous medicines are incorporated with it, it becomes of a dark hue, often quite black. Often the patches on the tonsils are surrounded by a very marked deep red circle, and the membrane appears depressed in consequence of some swelling in this red zone. When portions of the membrane separate from portions that are still attached, it has a shreddy, sloughy look, resembling loose cotton saturated with pus, and is commonly of a light grey color or of a dirty yellow.

In a few cases *convulsions* are an early symptom. I have already told you that convulsions not unfrequently terminate this disease; but they occasionally occur as one of the earlier symptoms. I have the minutes here of a case in which they occurred in a child four or five years old, two children in the same family being seized with diphtheria at the same time. The symptoms were almost exactly analogous, except that the younger child, in whom the disease proved fatal, was sleepy for two or three days before any membrane was noticed in the throat, but was very bright afterwards. He died of tracheal diphtheria. The other child, seized at the same time, had the same degree of fever, had convulsions two or three in succession, but had only a local inflammation, that is to say, membrane appeared upon the tonsils, exfoliated in two days, reappeared three days afterwards, was threatening for a time, but did not descend into the larynx nor ascend into the nares, and she recovered. Dr. Kneeland, in the *American Medical Times*, reports two cases where the disease was attended by convulsions in the beginning. They had not occurred before in any of these children. It does not

appear, from the few cases reported, that convulsions are very alarming in the earlier period of the disease, but at the conclusion they are of the utmost importance.

The pulse is interesting. Usually in the beginning of the disease it is rapid, in the child, 120 to 140, supposing the invasion to be decided. In the insidious cases we have but little means of knowing what the pulse may be, because our attention is not then called to it. As the disease advances, there are three things specially noticeable in the pulse. In some it continues at a pretty rapid rate during the whole of the disease; in others it is rapid for a certain time, and then almost suddenly falls off to some small number, 56, 50, 40 even, and remains there, without any cause that we can distinctly ascertain, for three or four days; and in others still its striking feature is extraordinary irregularity—rapid, interrupted, and irregular in all respects. Among these peculiarities I think I have learned to regard the irregular pulse in the advanced periods as of the gravest importance. A rapid pulse can be borne for a considerable time, and still a child may recover; and the infrequent pulse, as I have met it, is not among the most alarming of the prognostics; but a markedly irregular one is that which gives me the gravest anxiety. I know of no one symptom, the difficult breathing alone excepted, that is more indicative of an unfavorable issue.

A circumstance that will early attract your attention is that while there is much inflammation of the throat the patient makes but little complaint of soreness. There seems to be in these parts in certain cases a sort of local anæsthesia, whether muscular paralysis exists or not. A physician, about thirty-five years of age, felt the first symptoms of illness, of an afternoon in his carriage, while performing his usual round of duty. He soon had a severe chill, followed by high fever. This was interrupted by another chill, which in its turn had its fever, and before the evening he had still a third chill, followed by heat—all the time headache, vomiting, prostration. I saw him the next morning. His pulse was then 140; his face flushed and almost turgid. He had no soreness of throat, he said; but the tone of his voice announced swollen tonsils and an inflamed palate, and his febrile symptoms led me to the conviction that he had diphtheria. Patches of false membrane as large as a dime were found on each tonsil, while the external glands of the neck were moderately swollen—yet this case, so vigorous in its onset, was mild in its progress. He took tincture of iron without any application to the throat, unless perhaps he used a gargle of chlorate of potassa. In two days the membrane disappeared, and in one day more he resumed his professional labors. It happens, perhaps, in one-half the cases that no complaint is made of sore-throat, and there is no great difficulty experienced in deglutition; but there is often in children an extreme unwillingness to make an attempt to swallow.

It is worthy of notice, also, that *the voice* in tracheal diphtheria does not seem so uniformly affected as in croup, or rather it does not seem to be affected to the same extent. A great many children who are actually suffocating with this disease, from the embarrassment to the respiration, can speak aloud; some again can only whisper. *The croupy cough* is almost a constant symptom in tracheal diphtheria, occurring as it does in ordinary croup and from a similar cause; still Dr. Gottschalk reports two cases shown to be membranous disease by dissection after death, fatal from suffocation, in which the peculiar barking cough was not present at any time.

The condition of the *mind* is a point of some interest. In many of the children, no matter what characters this disease may take, the mind remains sound to the end; in others there is pretty active *delirium* during the middle stages of the disease; and still in others at the end there is coma; it occurred in the case that I just now referred to, recorded by Dr. Buck. In adults delirium is sometimes the most prominent of the symptoms. This was very marked in the father of the affected family at Elizabeth. While his

children were sick with scarlet fever and diphtheria, he suffered from diphtheria with but moderate febrile excitement; delirium commenced early in the disease, and continued until the throat symptoms began to subside. *Somnolence* is not an infrequent occurrence in the early and middle periods.

You hear a good deal about the *fetid breath* of diphtheria. It is not by any means a constant occurrence; you will perhaps see ten cases before you find one in whom this peculiar odor of the breath is very striking; when you perceive it, it will be decided. It has been ascribed to the decomposition of the false membranous matter that has been produced during the disease; but this is not all. I saw, for example, only a few days ago, a gentleman who had had diphtheria, and in whom the membrane had all disappeared; only a cough remained over, and his breath was so fetid that his physician was fearing gangrene of the lungs. It was for the purpose of discovering whether gangrene existed that I was invited to see him. I could, however, find none; there was nothing but that peculiar fœtor that is occasionally noticed in fetid bronchitis. It seems to be the result of a morbid secretion from the mucous membrane. But remember, you are not to expect its occurrence very often. I was led to suppose, in reading of this disease, that fetid breath was almost its diagnostic mark.

Diarrhœa.—This is occasionally noticed as a complication, and it is often a very grave one. Diarrhœa occurring in the latter part of the disease, is more apt to present itself in those who are already debilitated, and will sometimes be the immediate cause of death. It is therefore desirable that it receives early attention, coming on at this period.

Albuminuria.—I find, on examining my own notes, that the question of the existence of albumen in the urine was one that occupied my attention early in the epidemic. I am able to give you nothing more in regard to it than has been already written; it does occur in a moderate proportion of cases, and as yet no one has ascertained what is its significance. Cases in which albuminuria has been observed get well as others do.

The swelling of the fauces is occasionally noticed as a cause of great embarrassment in the breathing where the larynx and trachea are entirely free. This was remarkably true in the case of the gentleman at Elizabeth just referred to. His breathing was difficult and noisy when awake, but sleep for two or three days at the height of his disease, seemed to be impossible. The moment he lost himself the inspiration was interrupted, and after three or four unsuccessful efforts to effect it he would wake partially suffocated and alarmed. Expiration was not difficult. This seemed to arise from the relaxation of the swollen tissues of the fauces consequent upon sleep, these falling upon the larynx so as to stop the opening of the glottis. An embarrassment arising from a similar condition had been noticed in many other cases.

Coma, as you have been already told, is occasionally a termination of diphtheria, and it is a question yet to be decided whether that coma is the result of uræmia or not. In a word, here is a point in the symptomatology of the disease which has been very inadequately investigated, and I commend it to you as the subject of particular study, and indeed the whole subject of albuminuria in diphtheria.

I will delay you to-day a few minutes longer to consider one question more regarding diphtheria. Is it *contagious*? I have here rather copious notes from the authorities regarding this matter, and will recite to you the substance of them. Bretonneau, who is the first and principal authority in regard to most questions that are now agitated regarding diphtheria, entertains no manner of doubt of its communicability. He assumes that diphtheria was imported into Greece by numerous Egyptian colonists, and was known there as the Egyptian disease; and that the time at which this importation occurred was nearer to that of Homer than that of Hippocrates. I am sure I cannot tell from what authority he has derived this statement, but I believe it is very generally conceded by those who have looked into the chronology of

diphtheria, that the first clear indication of it is given by Aretæus. I know from my own research that he does not intimate how long it had been known. I am therefore disposed to assume that there is in this assertion something of that straining after effect, for which Bretonneau may sometimes be justly blamed. The diphtheria is undoubtedly the Egyptian or Syriac ulcer of Aretæus, but when and how it was introduced, I do not know that we have any evidence whatever. "The land of Egypt," says Aretæus (Adams's translation), "especially engenders it, the air thereof being dry for respiration, and the food diversified, consisting of roots, herbs of many kinds, acrid seeds and thick drink, viz. water of the Nile, and a sort of ale prepared from barley. Syria also and more especially Cœlo-Syria engenders these diseases, and hence they have been named Egyptian and Syriac ulcers." The assumption that it was brought from Egypt into Greece implies its contagiousness. Bretonneau is convinced that it is communicable from person to person by contact, as syphilis is; and he gives several instances mostly from the observations of Trousseau and Ramon, of its being communicated by direct inoculation. The following is one of his cases:—At the Ecole Militaire, in 1826, four pupils and one sister of charity had died. A pupil having excoriated chilblains, wetted his foot in a little pool of sputa at the bedside of one of the first patients. An excessively painful ulceration was the consequence; it was established between the toes, and was covered with false membrane. The Egyptian disease thus inoculated, yielded only to the employment of a solution of nitrate of silver, and after to the "soothing and cicatrizing action of calomel." In the table relating to cutaneous diphtheria given in the first lecture, an instance is referred to in which Trousseau and Ramon saw a woman who had contracted diphtheria of the nipple from suckling an infant who had buccal diphtheria. The inflammation in the mother extended to the breast with the production of false membrane, and exceedingly painful swelling.

Several instances are recorded in which physicians either in examining the throat of patients, or in performing tracheotomy, have been sprinkled with this secretion by the coughing of the patient and have afterwards suffered from the disease.

Bretonneau publishes the case of Dr. Herpin, Surgeon of the Hospital of Tours, as follows:—"I attended," says Herpin, "a child with pharyngeal diphtheria in angina, which had become croupal. It yielded to energetic cauterization with solution of nitrate of silver, frequently repeated for six days. A nurse, who took care of the child, was attacked with pharyngeal diphtheria, which soon yielded to local treatment. The child being intractable coughed and violently threw out the sputa. The orifice of my left nostril once received some of this excretion, but from being obliged to continue the cauterization, I had no time either to wash or wipe the part. A few days afterwards, there was snuffling on the left side, and nasal voice, then suddenly painful pharyngeal angina, sleeplessness at night, extreme uneasiness, weakness, coldness, and pain. In the morning both tonsils and the uvula were completely enveloped in a white incrustation. Three times a thimble of false membrane enveloping the uvula was detached and reproduced. Deglutition difficult, sputa abundant and fetid; stools loaded with false membranes," etc.

Bretonneau also gives the following:—"A short time after the inoculation of nasal diphtheria under which Dr. Herpin nearly sank, my friend, Dr. Gendron, of Château du Loire, being obliged to perform tracheotomy, received on his lips, at the moment of opening the air tube, a shower of tracheal exudation thrown out by a convulsive fit of coughing. Pharyngeal diphtheria was the immediate effect of this accident. Originating on one tonsil the special phlegmasia so rapidly reached the larynx that I was obliged to have recourse to energetic treatment. The cure was rapid and complete, and none of the symptoms of constitutional diphtheria were developed."

Within a few days it has been announced that Dr. Gen-

dron, of Tours, perhaps the same physician referred to in the last case, had died of this disease, having had his face covered with the secretions from the throat of a woman suffering with diphtheria, during tracheotomy. This certainly looks like contagion. It is not a year since, that Baltimore has had occasion to lament the death of a distinguished and learned physician, whose disease *seemed* to be acquired during the performance of the same operation. Soon after performing tracheotomy for diphtheria, Dr. Frick began to suffer from sore throat, which terminated in membranous disease of the larynx. Tracheotomy was performed, but it was unavailing, and he died. It does not appear that in his case there was any actual contact of the diseased secretions with any of his mucous surfaces.

In opposition to this opinion of Bretonneau, "that true inoculation is the only mode of transmitting the Egyptian disease," we have to remark the complete failure of the attempts which have been made to produce this affection by the application of the morbid products to the tissues of men and animals. Both Bretonneau and Trousseau have attempted to inoculate their own throats with this disease, and have both failed; the latter made one puncture on his arm, and five or six on the velum pendulum palati. On the arm a vesicle was produced, but no result on the mucous membrane. Quite recently Dr. Peter of the Children's Hospital in Paris, has added his own personal experience in inoculation, and like Bretonneau and Trousseau, failed to produce any specific disease.

Instances are reported by Greenhow of attempts to inoculate the inferior animals, all of which were unsuccessful. Bretonneau says, "I have made some ineffectual attempts to communicate diphtheria to animals."

Most of the later French and English authorities agree with Bretonneau in the general fact that the disease is communicable, but very few assent to his doctrine of exclusive and literal contagion. The facts usually cited as evidence of contagion are—the disposition of diphtheria to spread in families when it has occurred in one member; the spread of the disease in hospitals from bed to bed, and its disposition to confine itself to particular wards; its production in families and places previously healthy, as the sequence of the introduction of persons from infected families and places who have fallen sick at their new residence. On the other hand it is well known that the disease is often confined to one person, though surrounded by those who are believed to be liable to it; and it is well known that outside epidemic influences often simulate very closely the effects of contagion. I suppose we shall be obliged to sum up the matter in a few words, and say that the strength of the argument is upon the side of contagion. My own observation has given me but limited opportunities of observing its communicability. I believe, however, we should not be justified did we not take certain precautions in the chance that it might be communicated. It will doubtless take a good while to settle the question satisfactorily; it has taken a long time to determine whether typhoid fever, scarlet fever, and measles were communicable, and it took a great while to determine that yellow fever was not communicable. In the meanwhile my conviction is that it is our duty to remove healthy children from those that are infected, and also to forbid the use of table furniture and linen appropriated to the sick by any other members of the family; and not to use a spoon or other instrument, with which the tongue of a diphtheritic child has been depressed, for the same purpose in another child, until it has been thoroughly cleansed.

DOMESTIC ITEMS.—Prof. Flint has returned to New York, and is now giving a course of lectures in the Long Island College Hospital.—Prof. Flint, Jr., has gone to Europe to pursue physiological studies.—Dr. Juriah Harris, editor of the Savannah Journal of Medicine, has retired from that position.—Prof. N. A. Pratt, of the Savannah Medical College, has resigned.

Original Communications.

A FEW SURGICAL FACTS,

WHICH EXPERIENCE HAS FOUND USEFUL, AND WHICH ARE NOT KNOWN TO THE PROFESSION GENERALLY.

EXEMPLIFIED BY CASES,

By J. J. CHISHOLM, M.D.,

PROFESSOR OF SURGERY IN THE MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA.

CASE I. A Simple Mode of insuring the proper healing of Anal Fistula, after incision; avoiding the necessity of daily Plugging the Wound, which is so troublesome to the Surgeon and so very painful to the Patient.

Mr. R——, aged thirty, of good health and robust frame, had been for a long time annoyed by a rising on the left buttock, which frequently formed an abscess and discharged. The escape of pus continued for some days, then gradually diminished until scarcely perceptible; the part, however, remaining always more or less moist. As business necessitated much horseback riding, the irritation was kept up by this exercise. Upon examination, a probe traversed a blind fistulous passage of nearly two inches in length. The entire track was incised and thoroughly painted, throughout its entire extent, with perchloride of iron, for the double purpose of controlling hemorrhage, and slightly cauterizing the surfaces, so as to prevent quick union between the lips of the wound. A mass of firmly clotted blood filled up completely the interstice. Twenty-four hours after the application suppuration had already commenced, detaching the coagula, which were before firmly adherent to the wound; granulations formed over the entire surface, and consolidation from the bottom was rapidly effected without the patient having been detained a single day in his chamber.

The daily plugging of the wound, which is so very painful as to make the patient shun the visits of the surgeon; the doubts of retaining the plug within the wound, and the confinement necessary when this treatment is carried out, are all obviated by the much simpler, safe, and more efficient method of painting with the perchloride or persulphate of iron. The tent is a relic of a former age, which should be discarded from the treatment of this surgical lesion.

CASE II. How to Control troublesome Hemorrhage from Small Vessels without Complicating the Wound with Ligatures.

Rachel, a healthy negro, aged twenty, entered the Negro Hospital, for the removal of a keloid tumor. The growth commenced in early childhood, from the irritation of the skin around the small puncture made in boring the ear for ear-rings by means of a red-hot sewing needle, a common practice among negroes. The tumor, as large as the fist, hangs from the lobe of the left ear by a pedicle of healthy skin about the size of the index finger. When this peduncle was divided, an active hemorrhage ensued from a number of subcutaneous vessels which had developed themselves into the nutrient arteries of the growth. As it is always very important, after the incision of such tumor, to heal the wound with the formation of as little cicatricial tissue as possible, otherwise the return of the keloidal growth is certain, it was necessary to close the wound accurately, for healing by the first intention. Ligatures to the bleeding arteries would have interfered with the ready healing, and were therefore inadmissible. Torsion was unsuccessfully tried; active styptics were contra-indicated; and as the vessels were too large and the bleeding too free to be controlled by direct pressure in these loose tissues, the following plan was adopted to stop the hemorrhage: *The arteries were seized and ligated with a thread, which after cutting through the inner coats and puckering the outer, would break, when the traction was continued, rather than cut through the outer coat.* By breaking the ligatures, the ends

of the arteries were sealed up, a troublesome hemorrhage at once and permanently checked, and the wound left clean for obtaining quick union. Several arteries having been secured by this means, the edges of the wound were carefully approximated and retained by silver sutures, and the entire length of raw surface united by adhesion. No dressings were applied, the moisture in the line of incision being allowed to desiccate in the air.

CASE III. A Great Improvement in the Treatment of the Patient after Cataract Operations.

Mr. M——, aged sixty-three, in good health, has had failing vision in the left eye for several years, which was diagnosed by his physician incipient cataract. Eighteen months since, when sight was nearly lost in the left eye, the right also began to fail. The progress of the opacity was gradual, until within a few months, when under the excitement of politics, dimness increased with great rapidity, and in a week he lost all useful vision. When he presented himself for operation, a semi-hard cataract was seen in the left eye, and one of much softer consistency in the right. He could only distinguish shadows. The left eye, although for many years impaired, was the one selected for the operation of extraction. At the end of the second day after the operation, as the patient had been free of pain, his good feelings got the better of his discretion, and he was induced to overstep the bounds of propriety by partaking of a luxurious dinner, which brought on so violent an attack of indigestion, with its severe chills and distressingly gloomy and nervous feeling, that for several hours he felt assured that he would not see another day. The day after this attack he was allowed to get up, and on the fifth day, with adhesive plaster closing his eyes, he was sent out to walk. This he continued twice a day, walking one or two miles each time. When the first week after the operation had passed, he would open his eyes at twilight whilst walking, having them protected by a blue glass. By degrees more light was admitted to the eye, until the fourteenth day after the operation, when he could walk the streets at midday, his eye being protected from the glare of sunlight by the colored glass and from the upper oblique rays by the rim of his slouched hat. On the fifteenth day, Mr. ——— returned home, to a neighboring State, with a strong eye and such improved vision, as would enable him to see the line upon which he was writing his name, without using a lens. Before vision failed he was very near-sighted. Physicians are aware that no one act is so apt to derange the harmony of the animal economy, as to deprive suddenly persons in good health of their accustomed exercise. The importance of excluding for a few days strong light from an eye recently operated upon being equally recognised, *a patch of dark sticking plaster, properly applied, will make a dark chamber at any time*, so that the very common practice of shutting out air and light from the room in which is placed a patient recently operated upon for cataract is now no longer required. The above plan of keeping patients in absolute darkness, and yet allowing them the enjoyment of exercise in the open air, so conducive to digestion and general wellbeing, is one of the greatest improvements in the surgical treatment of diseases of the eyes. The adhesive plaster, which is used only when the eye would be exposed to too strong light, is applied as follows: A piece one inch and a half long and one inch wide, with its upper corners rounded off, is thoroughly moistened and applied to the closed eyelids by pressing its inferior edge firmly upon the face, over the lower orbital and malar region. The upper portion of the plaster is then allowed to fall upon the closed upper lid, when, if previously properly moistened, it will hold the lid secure by its own weight even without mild pressure.

Another point of much importance in the successful treatment of cataract patients is, after the first twenty-four or forty-eight hours, allowing time for the union of the wound, to advise the patient to keep the eyes open, at intervals in the dark room, as long as it is found comfortable, night having excluded all injurious light from the apart-

ment. This accustoms the retina to moderate light, which when daily increased by gradually admitting more light into the chamber, will soon enable the eye, when shaded by a colored glass, to stand even some light after two or three weeks. The common practice of keeping the eye closed until eight or ten days have elapsed, when it is suddenly brought out in strong light for examination, cannot be too severely censured. The rational process of gradually introducing light from the second day of the operation will, by the tenth day, enable the eye to bear for several hours sufficient light to permit a very satisfactory examination. Experience has taught every surgeon that trouble after cataract operations often dates from the moment of inspecting the injured eye, and can readily be accounted for in the sudden and extreme changes of light to which the sensitive eye is during a few minutes exposed. Up to this examination all had gone well, immediately after it all is excitement, and the patient, racked with agonizing pain, is fortunate if, after several days of torture, an eye with very indifferent vision is saved. Ample experience has proved the value of the above suggestions.

CONGENITAL HERNIA.

By J. W. RIGGS, M.D.

THERE are many points of interest in connexion with the subject of hernia which will bear, if they do not demand, further discussion. It is indeed noteworthy, and well deserving of all the thought it seems destined to command—that this is the only disease known, of which it may be said that as regards its management there is no settled policy.

Not only is there great diversity of sentiment as to the means best adapted to its treatment, but when the disease occurs in infancy and in its simplest form, even the time when to institute measures for relief from this ever-existing and universal scourge, is found still to remain an open question with the medical profession. While many advocate recourse to mechanical supports immediately on the development of the malady, without regard to age—others, and apparently quite as many, urge delay in the use of all appliances of this nature, to different periods from birth varying from a few months to three or more years.

The question, then, which seems very naturally to claim precedence, and which it is proposed to consider here is—at what age during infancy is it proper to resort to the use of trusses?

In favor of their postponement in very young subjects, it is argued that, owing to the severity of trusses, children at this tender age cannot tolerate their use—and that, therefore, they are only admissible when after the lapse of months or of years perhaps, or, at some indefinite time in the future, the child's powers of endurance shall have become sufficiently augmented to wear them without suffering or inconvenience.

So also is it said (and truly too), that spontaneous cures not unfrequently occur—some even claiming that recoveries are scarcely less frequent when left entirely to nature than when submitted to the ordinary treatment.

It must be admitted that the foregoing arguments are not without meaning, nor at all wanting in apparent plausibility and force; and if the suffering so justly complained of is unavoidable, and if no greater measure of success is attainable by trusses than is here implied—then it may well be questioned whether their application should ever be encouraged during the earlier weeks or months of infancy, or perhaps at any time during the first years of childhood.

However this may be, we must advocate treatment in this disease at the moment of its development, regardless of the age at which it may occur—marking, in the first place, that *congenital hernia*—when not speedily cured or the parts are not suitably and effectually supported—is believed to predispose its victim ever after to a recurrence of the disease, or, if not to this, sometimes to certain other abnor-

mal conditions presently to be noticed, but not especially to be desired.

The professional reader knows that congenital hernia differs somewhat from ruptures occurring later in life, in that the protruding viscera, in the former, are contained within the tunica vaginalis, and are in direct contact with the testis. So far as treatment is concerned this distinction is of little or no importance—though it is deemed worthy of mention here, for the influence it is supposed rightly to claim in the settlement of the foregoing proposition.

All physicians are sufficiently aware also how this infirmity baffles treatment and persists for months and years, in defiance of every effort for relief; and in cases which have thus remained uncured most practitioners may have witnessed serous effusions within the delicate investment of the spermatic vessels, as a not unnatural result dependent upon its open and exposed condition whilst under treatment by the truss. This hydrocele of the cord is sometimes limited to a small cyst outside the abdominal ring, though oftener more diffused and extending into the inguinal canal.

Now when this watery tumor does thus reach into the hernial passage and keep it over-distended for years, or it only for months (it being *usually* mistaken for hernia and treated as such), one of its effects must inevitably be, sooner or later to invite a recurrence of the original malady. It is not denied that physicians would be very likely to detect the true character of such tumor, and at once and for ever dispose of it by a simple puncture. It will be borne in mind, however, that we are considering hernia *as it is*, and not as it *would be* under the care of the medical profession—where, like all other diseases, it properly belongs.

But hernia in infancy and childhood, is believed to predispose to a like condition in after life, *independently* of such complication with hydrocele; and it is deemed worthy of special notice, that when relapses do occur, as mentioned, in maturer years, they *always differ essentially from primary hernia*, and cannot be treated with the same reasonable hope of cure, or of entirely satisfactory results, as might be indulged if the disease had not previously existed in the same individual.

That consecutive rupture is less amenable to treatment, as alleged, is supposed to be owing to the hernial passage in these cases being more or less enlarged, especially throughout all its upper portion, as well as shortened also in its length, as a natural if not necessary consequence of the disease and its treatment, if any, early in life. At all events, the changed condition of the openings here alluded to is indisputable, and an examination will convince any surgeon of its universality in such cases; nor will it excite the surprise of any one who will give the subject a moment's thought, that so many of these cases bear a striking resemblance to (and are *practically*) direct hernia.

If in the *adult*, the canal is *always* dragged down more or less, and sometimes to its entire obliteration for want of suitable support, it is not difficult to account for the like phenomenon, and in an aggravated degree, where, during the tender ages of infancy and childhood, the disease exists either without treatment or is treated by strapping the truss upon the pubes (as is usual), thus simply obstructing the passage at its outlet without the slightest support of the canal itself. The pocket here formed by the action of the viscera upon the conjoined tendons of the internal oblique and transversalis muscles, it is rational to suppose, becomes the natural receptacle for the viscera, and by their habitual presence and influence, is ever after maintained.

Hence, under circumstances like these, to expect to find the inguinal canal well preserved in its entirety, or even in a state approximating to its normal condition, would be to look in vain for what is believed not to exist.

There is another complication or result of congenital hernia, not unworthy of notice, attributable, however, more to the *unskillful use* than to the *neglect* of remedial agents.

For the want of a single hint or word of advice from the

proper source, mothers and nurses having charge of ruptured children, take special pains, in obedience to instructions given them, to "put everything back" preparatory to the adjustment of a truss; and to their credit be it said, in these commendable efforts they are oftentimes eminently successful, even to the permanent lodgment of the testis itself fairly within the abdominal ring, or, perhaps, entirely within the belly. Now, whatever may be said of this unique though time-honored method of "plugging the hernial passage," it amounts at least to a contravention of nature's laws, and frustration of nature's designs, which at this day of growing conservatism in the healing art, will scarcely be sanctioned by the medical profession.

Moreover, the practising physician need not be told that when the gland does thus become fixed in the canal, it is treated, not now and then only, but *usually* and by no means strangely, as an ordinary bubonoecele; the victim being tortured by trusses oftentimes for years under this misapprehension, and until the error is discovered, or until the bruised and goaded member retires from the unnatural, protracted, and painful contest, as if for deliverance and repose, to a safe retreat entirely within the walls of the abdomen.

Nor does the history of congenital hernia with this complication always end with the disappearance of the testis in the manner just mentioned.

An interesting case in point here follows:—

"By the advice of a highly intelligent physician, Mr. D. applied in the summer of '58 for an operation for the radical cure of hernia which had then existed for nine years. Patient 38 years of age, medium size, well developed, healthy and vigorous, and for many years a sailor—was ruptured, and wore a truss in infancy. Some nine years prior to the above date, while exerting himself violently during a storm at sea, the tumor appeared suddenly in the right inguinal region, attended at the time and for some days thereafter with considerable suffering, for which the surgeon on board applied a truss; with the effect, however, to keep the thing only partially reduced, and with no immediate or any sensible relief. From this time on, he said he had bought a new truss every time he went on shore, having expended nearly all his earnings in pursuit of an instrument which he could wear with comfort, but without success. At length he abandoned the sea on account of his malady, and spent one year abroad under the care of an eminent surgeon and popular writer, who also applied several instruments with no better results; when the patient resumed his former life, continuing to change instruments from time to time as opportunity afforded, until the date first mentioned."

To the eye, as well as under manifestation, this case presented the usual characteristics of bubonoecele so strikingly (as they always do) that it is by no means strange that its true nature should be overlooked, even by the best surgeons, unless accustomed more than ordinarily to treating hernia. On inquiry, however, it was found that from first to last, the size of the tumor, as well as its situation, had been uniformly the same—that, though movable, and easily reduced, it always reappeared suddenly on the removal of the instrument, whether in the erect or horizontal posture. Pressure upon the part produced sensations identical with those caused by like pressure upon the testis of the opposite side, which, together with the absence of the gland in the scrotum, left no doubt as to the nature of the case.

He was advised, of course, to abandon all treatment, which he did, and resumed his seafaring life, performing all his duties without discomfort or inconvenience up to September last, (more than two years after all support had been removed), the tumor remaining the same.* Several cases, not unlike the above in their general history, have been seen in the adult, and it is not at all uncommon to

find children and lads wearing trusses upon the pubes with the inguinal canal plugged by the testis.

But there is another argument in favor of early treatment in congenital rupture. It has been noticed doubtless, that owing to the greater susceptibility of children at this tender age, to all disturbing influences, ruptured infants are never well. Colic, and other derangements, are constant attendants upon this condition when the parts are not properly supported; and in very young infants, especially when otherwise delicate and feeble, as they frequently are. This additional infirmity must be regarded as a very serious drawback upon their health and prospects, and it is believed oftentimes cuts short their ever miserable and precarious existence.

Such are the arguments in favor of treating this disease as soon as discovered, regardless of age or of circumstances, and observations in the past are believed to have demonstrated the entire practicability of this policy. If there are cases now and then in which from any cause the truss cannot be made available for the purpose, there is believed to be none where a suitable bandage and compress cannot be so adjusted as to render the child for the time being more comfortable, as well as safer than it could be without adequate support.

Moreover, there is believed to be no good reason why young children should not always and invariably be cured of this malady, and that within a reasonably short space of time.

Finally, whatever differences of opinion there may be among the profession as relating to this disease, its management, etc., it will scarcely be denied that hernia, as now existing throughout Christendom, is a very different thing in all its aspects from what it would be under a different regime, and treated from its incipency with that discrimination and due regard to certain well defined laws and principles which are so justly deemed indispensable to the successful treatment of all other diseases and infirmities.

NEW YORK, 2 Barclay Street.

PERSULPHATE OF IRON AS AN INTERNAL HÆMOSTATIC.

READ BEFORE THE SOCIETY FOR MEDICAL IMPROVEMENT AT THE LONG ISLAND COLLEGE HOSPITAL.

By ARNOLD HALLET, M.D.,

PHYSICIAN TO THE HOSPITAL.

THE object of this paper is to bring to notice the great superiority of the persulphate of iron over any other known hæmostatic agent, particularly as an internal remedy in passive hemorrhage from the lungs, stomach, or any other viscus.

A good deal has been written lately upon it as a local styptic, but I am unable to find that it has been much used as an internal remedy. My attention was first directed to it by Dr. Dudley, in a case of hæmatemesis, and from its prompt action in that case, I have been induced to prescribe it in a number of other instances, and thus far have not known it fail, in promptly arresting hemorrhage in any case.

To illustrate the good effects of its use, I will detail very briefly a few cases.

CASE 1.—Mrs. S. æt. 22, of rather delicate constitution, habitually constipated, and suffering from indigestion, was attacked January 17, 1860, after syncope, with vomiting of a quantity of matter resembling coffee-grounds in appearance. Ice was ordered internally, with Warren's styptic every three hours, which controlled vomiting for about twenty-four hours, when she was again attacked with syncope, followed almost immediately by the same characteristic vomiting, with great prostration. Ordered sinapisms to the feet, as they were cold, and five grains of gallic acid every three hours. After this there was no more vomiting for about the same period, when she was again attacked, as in

* Dr. Jas. R. Wood saw this case, and admitted him to the Wards of Bellevue Hospital, for some two weeks, and until he recovered from the effects of his truss, which had occasioned some suffering.

the previous instances; each time becoming more and more exhausted. To clear out the contents of the bowels ten grains of calomel were now administered, and the same remedies were continued, everything being taken icy cold. But it was all of no avail, the hemorrhage still continued, and finding that I should lose my patient, I suggested a consultation, which being acceded to, Dr. Dudley was called in. The case was diagnosticated as one of congestion of the stomach, consequent upon a deranged condition of the functions of the liver. I omitted to state that her evacuations were of the same black appearance. She was regular in her menstruation. Dr. Dudley suggested the sol. of the persulphate of iron, to be administered in fifteen drop doses every four hours, which immediately arrested all unfavorable symptoms, and there was no return of the vomiting after the first dose.

About two years previously, while in the country, after an attack of syncope, she had quite a free black dejection, which was repeated at short intervals, and without any other symptoms than those of prostration; she was taken to her bed, where she remained for some weeks, and from that time her health has been rather delicate, suffering constantly from indigestion. At present she is in a rather better state of health than usual, and has had no return of hemorrhage.

CASE 2.—On the 20th of last November I was called to see a child four years of age, in consultation with Dr. Barber. About three weeks previous it had an attack of scarlatina, and everything was going on well, when suddenly she was seized with hemoptysis. The usual remedies were prescribed, but they were of no avail, the child continuing to expectorate quite freely bright arterial blood, accompanied with a rapid sinking of its physical powers, and great dyspnoea. I suggested that four drops of the persulphate should be administered in water every three hours, which soon entirely controlled the hemorrhage, but the child died of exhaustion three days after. Soon after the first dose the respiration became easy and the cough rapidly subsided.

CASE 3.—Miss T., æt. 13 years, of vigorous health, was attacked with scarlatina on the 5th of last November. She passed nicely through the first stages of the disease, but about the 15th, when desquamation of the cuticle had commenced, observing a little puffiness about the eyes, I immediately examined her urine, which was very scanty, and resembled in appearance water-gruel. Upon boiling it was found to be highly albuminous. A brisk cathartic was administered, and cream of tartar water ordered to be drunk freely. Stimulating applications were applied to the region of the kidneys; on the 18th, three days after, her urine was a little more free, but, with the albumen, it contained a large quantity of blood. Skin hot and dry; tongue furred; pulse not much accelerated. Ordered spir. mindererus. 17th.—Water increasing in quantity, but no diminution of the amount of blood. Leeches were now applied over the region of the kidneys. 22d.—The quantity of urine excreted was about normal, albumen very much diminished in quantity, but the blood continued as free as ever. Ordered four grains of gallic acid every four hours, which was continued for three days—the bowels being kept open by an occasional dose of the comp. powder of jalap. 15th.—Albumen pretty much disappeared, but the blood still persisted. I now had recourse to the persulphate, and in twenty-four hours the blood had entirely disappeared from the urine; it was then omitted, but the next day there was almost as much blood as ever. A few more doses, however, soon controlled it, and there has been no return of it since. She is now, I am happy to say, convalescent. In administering the persulphate of iron care should be taken to have it largely diluted, and not to give too much at a time, as from its astringent effect upon the mucous coat of the stomach, it is apt to be immediately ejected. I would also state, that I have used it in profuse menstruation with a like happy result. I presume that it checks internal hemorrhage by exerting its astringent principle upon the capillaries, and also in hæmaturia, by correcting the alkaline

condition of the urine, which is said to excite bleeding by its irritating qualities. Inflammation should preclude its use, until it is overcome by appropriate remedies.

In Dr. Hamilton's patient, who was operated upon in this Hospital four days ago for vesico-vaginal fistula, profuse hemorrhage came on yesterday, from the bladder, so much so that quite large clots were expelled through the urethra, and the patient began to sink from loss of blood. I understand from Dr. Lynch, that all other means having failed to arrest the hemorrhage, recourse was had to the solution of the persulphate of iron internally, when the bleeding stopped. But whether "post hoc, ergo propter hoc," is true in this case, I am unable to say.

AMPUTATION AT THE ANKLE JOINT.

By WILLIAM C. BENNETT, M.D.,

DANBURY, CONN.

Mrs. V—, æt. 40, applied for advice concerning a disease of the foot. When a babe a portion of this foot was amputated for some disease, name unknown to her. It healed and continued well until about two years since, when it became again diseased, and she went under the "care" of a botanico-eclectic quack. When I saw her in October a large mass of unhealthy granulations occupied the site of the old cicatrix. Most of the bones of the foot were evidently diseased, the patient's health was failing, and with my father's assistance, I amputated the foot at the ankle joint. I had intended to leave a portion of the os calcis, as recommended by Pirogoff, but on cutting down so extensive was the disease, that I changed my plan and removed that also. Then came my trouble. The flap must be more or less cup-shaped, and blood and pus will accumulate there which is to be forced up by bandaging (quite tight bandaging it needs) over the granulating edges of the wound—in short, an abscess with the opening at the top. The bandaging pained the patient; the pus flowed over the granulating surface preventing cicatrization; besides it was almost impossible to apply a bandage there so as to prevent all the pus from following the law of gravitation. But in a few days more nature made a little opening in the depending part of the flap (which I, following authority, had been so careful to avoid). The pus ran down the hill instead of up; the wound cicatrized in a very short time, and the patient has an excellent stump, on which by a high shoe she can walk without difficulty.

Reports of Hospitals.

LONG ISLAND COLLEGE HOSPITAL.

DR. F. H. HAMILTON'S SURGICAL CLINIC.

MARCH 18, 1861.

[Reported by GEORGE H. MARVIN, Medical Student.]

Fracture of the External Condyle of the Humerus—A Peculiar Displacement of the Fragment, rendering it necessary to Treat the Case with the Arm in a Straight Position—Splint Continued only Fifteen Days—Good Result.

EDWARD SCANLON, æt. 6, fell, March 13, 1861, from a height of several feet, with his right arm underneath his body. He was brought to the hospital on the same day, when he was seen by Dr. Pease, House Surgeon, and Dr. Lynch. On examination, it was found that there was a fracture of the external condyle of the right humerus, extending into the articulation; the fore-arm considerably deflected to the radial side; crepitus distinct. On flexing the fore-arm to a right angle with the arm, the condyle was displaced outwards and backwards; but on straightening the arm it was made again easily to resume its place. This experiment

of flexion and extension was repeated several times, and always with the same result. The gentlemen, therefore, determined that it would be necessary to treat the arm in the extended position. Accordingly, a long straight splint, well padded, and of the width of the arm, was applied to the whole length of the palmar surface of the arm and forearm.

Remarks.—Gentlemen, to-day, which is the fifth day following the receipt of the injury, I find the fragment in place, and advise the continuance of the same splint. Benjamin Brodie, Sir Astley Cooper, and others have regarded fractures of the external condyle as exceedingly rare; while, on the contrary, Malgaigne speaks of it as common, and adds, that he has never seen an example of fracture of the internal condyle in the living subject. I find it difficult to explain this discrepancy of opinion, and especially since, in my own experience, there has been but little difference in the frequency of the two accidents; thus of thirty-four examples of fractures of the condyles in the living subject, eighteen were of the external, and sixteen of the internal condyle.

With regard to the cause of these accidents I would observe, that it is important here, as elsewhere in the diagnosis of fractures, to determine the manner in which the accident occurred; thus, a fall upon the palm of the hand usually breaks the radius near its lower end. Or if from the fall upon the hand, an injury has been received at the elbow-joint, it is usually a dislocation of the radius and ulna backwards; and it has never happened to me to see a fracture of either condyle of the humerus produced in this manner—the fractures of either condyle being always, or almost always, distinctly traceable to a direct blow. Such seems to be the fact in this case, the child having fallen apparently upon his elbow. The phenomenon observed by Drs. Pease and Lynch, viz. the backward displacement of the fragment, has been noticed by me twice before, once in the case of James Cronyn, æt. 6, presenting an example of the fracture of the external condyle, and reported at length at page 264 in my work on "Fractures and Dislocations," and again in the case of Henry Gilbert, æt. 5, with a fracture of the same condyle, and recorded in my report on "Deformities after Fractures," Vol. IX. of the *Transactions of the American Medical Association*, page 117, marked as case 62. In this last example it is mentioned that the "fragment was thrown *forwards* whenever the arm was flexed to a right angle," from which it was intended to be inferred that the upper extremity of this fragment was thrown forwards while the lower was thrown back.

The practical inference from these three cases is, that in certain examples of fracture of the external condyle, the forearm should be extended on the arm during the treatment, instead of being flexed, as is usually required.

In explanation of this phenomenon I remark, that it would seem to be due to the action of those muscles which arise from the ridge immediately above the condyle, and which extend to the wrist, and not to those which arise from the condyle itself; so that, when the arm is flexed, they are capable, by their contraction, to draw the head of the radius backwards, and consequently to displace the fragment, to which the head of the radius was attached, in the same direction.

I will direct the patient to be placed under the care of the House Surgeon, with instructions to remove the splint once daily, and while the hand is held firmly upon the fragment, to flex and extend the forearm gently so as to prevent ankylosis at the elbow-joint. Some surgeons have questioned the propriety of much splinting or bandaging, in the case of accidents about the elbow-joint, believing that there was more to be feared from ankylosis than from displacement of the fragments. Such was the opinion entertained by Mr. Grainger, who wrote, many years since, an excellent article on fractures of the epicondyle in the *Edinburgh Medical Journal*. According to Dr. Norris, the late Dr. John C. Warren, of Boston, entertained a similar opinion, and Malgaigne has expressed himself much in

the same way; and three cases of non-union, or of fibrous union of the condyles, which have come under my notice, might seem to confirm the same view, since even in these cases, notwithstanding that the fragments never became united by bone, but moved freely backwards and forwards in the motions of flexion and extension of the arm, yet the utility of the members was in no degree impaired; the powers of flexion and extension, pronation and supination, being as complete as before. Two of these were examples of fractures of the external condyle, and one of the internal. (See Dr. Hamilton's work on "Fractures and Dislocations," page 263.)

March 28.—Edward Seanlon was again brought before the class. The elbow has been moved every day since the occurrence of the accident. Until yesterday, Dr. Pease had noticed that the fragment always moved a little when the arm was flexed. This motion has now ceased, only a slight degree of rigidity remains at the elbow-joint. There is no apparent deformity, but as the arm is still a little swollen, it will not be possible to determine the question of deformity conclusively until this swelling has subsided. Splints are not to be reapplied, but the arm is to be flexed and extended every day as before.

American Medical Times.

SATURDAY, APRIL 13, 1861.

THE SABBATH QUESTION.

EUROPEAN travellers in this country are accustomed to remark the general observance of the Sabbath as a day of rest by the masses of the American people. So strikingly does this custom contrast with the prevailing habits of continental communities, that many have regarded it as a distinctive feature of our civilization. Of the truth of this observation there is no doubt. Although as a people we present a singular admixture of the European nations, every one being represented but in variable proportions, the social fabric of our civilization was firmly laid by a single and united class, exiled from these old communities. During the long interval of nearly two centuries which elapsed between the first settlement of the Protestant refugees in America, and the general emigration of all classes from the Old World, the principles upon which our civil as well as social institutions were established, became of vital importance, in the opinions of the people, to their very existence. To our Puritan forefathers are we indebted for many of our distinctive social peculiarities, and for none more directly than the civil as well as Christian Sabbath. The religious observance of this day by the entire community, was regarded of such consequence to the welfare, not only of the individual, but of the State, that government early took cognizance of it, and forbade, under severe penalties, the slightest infringement of its sacred obligations. Ludicrous as appear many of the civil restrictions thus imposed upon individuals, we cannot fail to recognise the deep and lasting impression which religious training, enforced and made obligatory by the sanction of the State, has made upon our social and civil condition. The observance of the Christian Sabbath, as a day of rest from all secular employments, and for the inculcation of religious truths, may be considered a fixed American custom.

The general emigration which took place from all European countries during the last quarter of a century, and converged to our shores, has concentrated, especially in large towns, a people educated to regard the Sabbath as at best a day to be devoted to recreation and amusement. They are intolerant of the restraint which government has imposed, and demand entire freedom in the pursuit of self-gratification.

Within the last two or three years the respective advocates of these two phases of social and civil custom have been arrayed against each other, but, as yet, the American idea of the Sabbath has prevailed in all the States where the question has been agitated. Laws have been enacted providing still stronger safeguards against Sabbath desecration than heretofore existed. The friends of the Sabbath in this city are organized under the name of the "New York Sabbath Committee," while the opposition have various organizations, the principal of which is the "Liquor Dealers' Association." During the present session of the Legislature of this State the latter party have made strenuous exertions to have the laws, suppressing the liquor traffic on Sunday repealed. The able minority report of the Committee on Cities and Villages, by Hon. L. C. Ball, opposing the repeal of such laws, is before us, and invites from us, as medical journalists, an expression of opinion as to the bearing of this controversy upon the public health.

It is true that the rigid practice of all the virtues in the Decalogue will not exempt one from disease in any form, but it is equally true that the strictly virtuous are not liable to a long catalogue of maladies which by preference attack the vicious. No one, we are persuaded, will deny that the laboring man who spends his Sabbath with scrupulous regard to its religious obligations, is less liable to those common vices which are the exciting causes of disease, than his neighbor who resorts to places of amusement. Holidays in general are acknowledged to be universally productive of vice and crime among the laboring classes. The source of the evil is not in relaxation from labor, but in the pursuit of those amusements which stimulate the passions, and in the indulgence in intoxicating beverages—the universal stimulus to vice. If these latter agencies were entirely withheld during holidays and Sundays, all observation shows that the amount of vice would be greatly diminished. We may cite facts from our police records which prove this point incontestably. From July 1857, to Dec. 1858 (seventy-six weeks) there was no restraint in this city upon the sale of liquors on the Sabbath, and the following is the comparison of arrests on Sundays and Tuesdays:—

	<i>Drunk.</i>	<i>And disorderly.</i>	<i>Miscellaneous.</i>	<i>Total.</i>
Sundays . . .	2,453	2,580	4,680	9,713
Tuesdays . . .	1,928	1,865	4,068	7,861
Excess on Sundays	525	715	612	1,852

During the five months from July 3 to Dec. 1, 1859, the liquor stores were closed on the Sabbath, and the following are the criminal statistics of the two last days:—

	<i>Intoxication.</i>	<i>Disorderly.</i>	<i>Assault and Battery.</i>	<i>All others.</i>	<i>Total Arrests.</i>
Tuesdays . . .	2,161	897	616	1,311	4,976
Sundays . . .	1,515	652	352	828	3,357
Excess on Tuesdays . . .	646	245	264	483	1,619

Thus it appears that when the liquor stores were open

there were twenty-five per cent. more arrests on Sundays than on Tuesdays; but when they were closed, the arrests were nearly fifty per cent. more on Tuesdays than on Sundays. Another fact of even greater importance is noticeable since the Sunday liquor traffic was suppressed, viz. a steady diminution in the ratio of arrests on both Sundays and Tuesdays is recorded.

What the effect of this universal drunkenness every seventh day must be upon the health of the laboring classes, no one will be at a loss to determine. Medical men, however, who are familiar with the habits of the poor, are cognizant of the fact that there is a large increase of sickness on Monday, the results of the previous day's dissipation. During the prevalence of epidemic diseases, the results of Sabbath dissipation are sometimes frightful. Cholera numbers its victims on Monday in a tenfold greater ratio than on any other day. The laboring man of generally good health is thus often unable to resume his employment for several days, even if he be not discharged by his employer, on account of his delinquencies. The miseries which are heaped upon a poor family by a Sunday debauch of the husband and father are thus often incalculable.

The proposition that the suppression of Sunday amusements, as theatrical performances, concerts, etc., is a measure tending to promote public health, will not be readily admitted as a necessity. There are many philanthropists who compassionate the laboring man in his incessant toil during the week, and desire to render the Sabbath not only a day of rest to him, but of recreation and diversion. It is true that a Sabbath spent in rural scenery, away from the excitements of the jostling city crowd, may be elevating, refining, and hallowing; but very different is the effect upon the *morale* of the individual, when the day is occupied with boisterous and exciting city amusements. These scenes are not conducive to rest, or even recreation, but they stimulate the passions and appetites, and lead to the wanton commission of offences. Sunday theatres, sacred concerts, etc., are the very hotbeds of vice in every city where they exist. Prostitution in its most attractive form and confidential manner here invites the unwary and unsuspecting. One who visited these resorts on Sunday in a neighboring city, says that in some he found the attendance of courtesans serving out lager beer to customers, and at the same time making their assignations with such as may be inclined thereto. The class of persons in attendance is thus given by another: "A large proportion of their guests are youth of both sexes; but there have been seen in many of them children of tender years, drinking their lager and sharing in their sports. Probably it would be no exaggeration to estimate the number of people gathered in these places on a single Sunday night at fifteen thousand; and the whole number of different persons patronizing them during some part of the Sabbath, at thirty thousand."

In view of the facts here briefly presented, it requires no argument to prove that liquor-selling and specious amusements on the Sabbath, tend not less to degrade public morals than to deteriorate public health. The necessity of reform had long been felt by many of our citizens. Grand-juries had also repeatedly directed attention to these fruitful sources of crime and disease, and called for the enforcement of the laws designed for their suppression. Stimulated by these appeals, and the request of citizens, the Police Commissioners at length began the work in earnest, and both liquor-selling and theatres have been suppressed

in this city during the past year. The result, as shown above, has been most salutary; the Sabbath is a day of the most perfect quiet; good order prevails everywhere; and Monday is no longer the day of the largest percentage of sickness. It is surprising that any one could be found who should petition our Legislature "to repeal an act to preserve the public peace and order on the first day of the week;" and it is truly astonishing that such petition should find a Legislative Committee willing to report favorably upon it. As medical men, we protest against the repeal of the laws designed to promote good order and sobriety on the Sabbath. Nearly every State in the Union throws around this day legal restrictions which prevent the disturbance of its hours of repose, and encourage the contemplation of moral subjects.

May the Legislature of this State heed the eloquent appeal of the minority report, which certainly meets the hearty approbation of every well disposed citizen:—"In view of the fact that the repeal of any portion of the laws in question would involve a departure from the legislative policy of this Commonwealth for more than two centuries; that it would contravene the known convictions of the great body of good citizens in all parts of the State, as it would be abhorrent to the moral sense of the entire Christian community; that it would encourage a spirit of lawlessness, immorality, and vice; that it would remove the barriers protecting the laboring poor from their tempters to drunkenness and folly; and that it would arrest the progress of reform in manners and morals which has inspired hope for the metropolis throughout the civilized world—we submit that the bill reported by the majority of the Committee ought not to pass."

THE WEEK.

On Friday evening, the 5th instant, PROF. BEDFORD delivered an eulogy on the late DR. FRANCIS, at the request of the New York Medical Society, before a large and intelligent audience, at Clinton Hall. The discourse was a truthful and eloquent portraiture of the character of this distinguished physician and scholar. The following paragraph presents in bold relief the leading characteristics of Dr. FRANCIS:—

"Distinguished as a physician, chaste and classical as a scholar, our deceased friend was eminently good as a man; his heart was capacious, and full of the kindest feeling; he possessed, in a remarkable degree, some of the finest attributes which impart dignity and value to human character. If I were called upon to designate any one trait more conspicuous than another in his nature, I should say it was goodness of heart—a broad, unequivocal philanthropy, which caused him to cherish for his fellow-beings a true sympathy. To the poor he was a consistent friend; he assuaged their sufferings and mitigated their afflictions by no mean liberality. One of the elements of his happiness seemed to consist in doing good. There was nothing sordid in the character of Dr. FRANCIS; to him the charm of wealth was the ability with which it enabled him to respond to the demands upon his private bounty. To the young physician commencing professional life, he always spoke in the voice of encouragement, and extended the hand of cordial friendship. To his peers in the profession, he was uniformly courteous and high-toned. In the sick-room, he was patient and kind; his very smile would reanimate the drooping spirits of the invalid, and kindle afresh new hopes of convalescence."

WE regret to find in the annual report of St. Luke's Hospital, the following unjust reflection upon the management of Bellevue Hospital. A patient, who had been a former inmate of St. Luke's, was returning for the purpose of paying his indebtedness:

"In the street, on his way hither, he fell senseless in a sudden access of his complaint; on recovery he found himself in Bellevue Hospital, and all his money gone. From there he wrote me an entreating letter, begging to be removed from a place 'where a Christian ought not to be left to die.' Once more in his old bed, sick as he was, the poor fellow declared he 'felt as if he had got to heaven'—the very expression which has been repeatedly used on occasions of like transfer."

It should be borne in mind that St. Luke's Hospital is a private charity, belonging to the Episcopal denomination, and averaging about seventy-five patients, while Bellevue is the great charity hospital of the city, receiving every class of sick paupers, and averaging nearly one thousand patients. If the management of our institutions is to be estimated by the prejudiced remarks of transferred patients from one to another, St. Luke's will not rank even above Bellevue; and if the rate of mortality, the more correct test, be the standard of comparison, it will take a much inferior position.

In the course of a forcible speech on the Metropolitan Health Bill, in the Assembly of this State, the Hon. L. C. BALL made the following just remarks:

"It is this utter ignorance of sanitary science, and this indifference to the enormous loss of human life, in the present health department, that render a change, both in the construction of the department, and of the men who administer it, an imperative necessity. This change the bill now before the house proposes to make. This bill proposes to place the supervision of the public health in the hands of competent men of the medical and engineering professions. Is not this the most natural and appropriate disposition of the subject? Is there anything more proper than that the care of the public health should be intrusted to medical men? When we are attacked by sickness, we do not employ grocery dealers, saloon keepers, carpenters, or draymen, to drive away disease, and renovate the sinking powers of life. Why should we commit the public health to such ignorant and incompetent hands? A gentleman of large experience and eminent ability, writing from New York, says: 'I know of no city whose sanitary department is not under the administration of medical men, except New York, and there is none whose mortality is so large.' Wherever the health department has been placed in the hands of competent medical men, the happiest results have immediately followed; the amount of sickness has been diminished, disease lessened, and the bills of mortality very materially reduced."

THE New York Legislature has passed the following resolution:—

"To Amend the Constitution so as to prohibit the sale of Intoxicating Liquors as a Beverage."

"Resolved (if the Assembly concur), that the Constitution of this State be amended as follows:

"The sale of intoxicating liquors, as a beverage, is hereby prohibited; and no law shall be enacted, or be in force, after the adoption of this amendment, to authorize such sale, and the Legislature shall by law prescribe the necessary fines and penalties for any violation of this provision."

A second resolution provides for submitting the question of thus amending the constitution to the popular vote next fall.

THE question of a second degree seems to have been practically settled at a Cold Water Establishment in this city a few days ago. The Hygeio-Therapeutic College makes no distinction of sex among its pupils, and, as might have been anticipated, the opportunities for forming permanent business partnerships have not passed unimproved. At its recent commencement the president conferred, in addition to the usual M.D., a second, or "Matrimonial Degree," upon a MR. MAXSON and MISS WILLIAMS. The second degree, only, is legally conferred by this institution.

Obituary.

EZRA JAMES FOUNTAIN, M.D.

It is with the most profound sorrow that we learn the death of this distinguished physician. The following note from his partner, Dr. JONN M. ADLER, brought us the first authentic intelligence of the sad event:—

DAVENPORT, Iowa, April 1, 1861.

STEPHEN SMITH, M.D.:

DEAR SIR: It is my painful duty to announce to you the death of my worthy friend and partner, Dr. E. J. FOUNTAIN, a personal friend of your own, and contributor to your journal. This melancholy event occurred on Friday, March 29, at 4 o'clock P.M., after an illness of a week. I have also to inform you of the sad cause of this untoward event. On Friday, March 22, Dr. FOUNTAIN took, at a single dose, an ounce of chlorate of potash, with a view of verifying his belief in the perfect innocuousness of the medicine when administered in large doses. The most violent results ensued—the main and immediate effect being on the kidneys. Inflammation of the stomach and intestines followed. The action of the drug seemed to expend itself immediately on the kidneys, a copious diuresis having occurred through the 22d until 10 o'clock P.M. From 5 A.M. of the 23d until the time of his death there was no secretion whatever from the kidneys. Autopsy was made nineteen hours after his death, the results of which I have noted.

It is my purpose, as soon as the opportunity offers, after deliberating carefully over the history of the case, to publish in the MEDICAL TIMES a full account thereof, together with the results as observed at the post-mortem examination.

It was his particular request that I should do this, and he desired me to give to the profession a full and impartial statement of all the circumstances connected with the case.

Dr. FOUNTAIN was born in Westchester county, N. Y., 25th February, 1828. He was the son of Dr. JAMES FOUNTAIN, an old and highly esteemed physician of that county, and long a prominent member of the profession of the State. In 1847, at the age of 19, Dr. FOUNTAIN graduated at Princeton College, N. J., and in 1851 at the College of Physicians and Surgeons, N. Y. Soon after his graduation in medicine, he entered Bellevue Hospital, where he remained but a few months, having been appointed in the meantime Surgeon to the Panama Railroad. While on the Isthmus, he suffered from the hepatic affections prevalent among the northern residents of that climate, and returned home after an absence of a year or more. He soon after opened an office in this city, but his dislike to the constraints of city life led him to resume his duties again in the service of the Panama Company, as soon as his health was restored. He finally resigned his position in 1854. It was during his practice at this station that he first used chlorate of potash, and observed its happy effects in mercurial salivation. This was four years anterior to its employment by M. Herpin, by whom it is generally believed to have been first used in this affection. In the autumn of 1854 he left for the West, and subsequently located at Davenport, Iowa, in partnership with Dr. ADLER, his companion on the

Isthmus, and most intimate friend. His success in practice was very great, having within two or three years obtained a large and lucrative business. He subsequently married a lady of that city, whom he leaves to mourn his untimely fate. The profession will await with interest the detailed statement of his final illness, and all the circumstances connected with this extraordinary and fatal experiment.

To the effects of this remedy as a therapeutic agent he had given much attention, and from recent correspondence we had learned that he regarded it as almost absolutely harmless in large and repeated doses; he had used it in a variety of diseases, and with results that tended to strengthen constantly his faith in its remedial properties. His writings have given to this popular remedy new interest, and have contributed largely to extend its employment. Whatever may be the results of future experience in the employment of chlorate of potash, this much is certain, that it will ever hereafter be associated with the name and fame of this intrepid physician.

Dr. FOUNTAIN was a brilliant ornament of the medical profession. Possessed of an ardent temperament, a quick and almost intuitive perception, he brought to the investigation of abstruse medical subjects a power that overcame the most formidable obstacles. No barrier which human ingenuity could remove was allowed to obstruct his progress. This feature of his character is illustrated in the mode of his death, and the final request that this fatal experiment should serve the interests of the profession, for whose advancement he has sacrificed his life. He had the highest sense of professional honor, and made the most laudable exertions to maintain the purity of local organizations. His zeal in behalf of legitimate medicine may have rendered his efforts indiscreet; but no one can fail to admire that keen sense of right actions which animated his every effort.

Dr. FOUNTAIN was a warm friend, as thousands who will mourn his early death can attest; he was a public-spirited citizen, who had a generous pride in the growth and prosperity of his adopted city. His domestic affections were strong, being a warm-hearted son, and a devoted husband and father.

Dr. FOUNTAIN died at the early age of thirty-two, and yet he was widely known to the profession, both at home and abroad, by his writings. It is not often that a medical man attains to so wide a reputation at that age. This is the more remarkable, when we remark the rather unsettled life which he at first led, and the exacting practice which occupied the latter years of his life. With the enumeration of the papers which he published, so far as we can recall them, we shall leave to Dr. ADLER the task of completing the hasty and imperfect obituary sketch which we have made:

Two Cases of Dislocation of the Femur Reduced by Manipulation—*New York Journal of Medicine*, Jan. 1856; *Death and almost entire Absorption of a Fetus of Six Months' Development*—*New York Journal of Medicine*; *Gangrene of the Lung, resulting from a Foreign Substance lodged in the Right Bronchial Tube, and terminating in Empyema, and Perforation through the Diaphragm and into the Colon, final Expulsion of the Body and Recovery of the Patient*—*North Am. Med. Clin. Rev.*, Sept. 1859; *Treatment of Stomatitis Materna by the Syrup of the Phosphates*—*North Am. Med. Clin. Rev.*, Jan. 1860; *The Medical Properties and Therapeutic Effects of the Chlorate of Potash, including the History of a Remarkable Case of Hemat thorax, Successfully Treated by this Remedy*—*N. Y. Jour. of Med.*, July 1860; *Treatment of Phthisis by the Chlorate of Potash, with Observations on Oxygen and Ozone as Therapeutic Agents* (read before the Am. Med. Assoc., June, 1860)—*Am. Med. Monthly*, Sept. 1860; *A Rare Form of Fracture of the Lower Jaw, involving both Neck and Body, treated by a Novel Method*—*N. Y. Jour. of Med.*, Jan. 1860; *Pathology of Albuminuria*—*Med. and Surg. Reporter*, 1861; *Placenta Prævia*; *Treatment by the Caoutchouc Water Pessary*—*Am. Med. Times*, March 9, 1861.

Progress of Medical Science.

Dr. B. F. Barker has a paper in the American Medical Monthly for January, on "An effort to shorten the duration, and diminish the pain of the first stage of labor." The treatment is to give belladonna, commencing about two weeks before the end of gestation, and continuing until the constitutional effects are slightly exhibited, when the dose is somewhat diminished. One hundred and forty-seven cases are recorded.

New Alkaloid of Opium.—Dr. Wittstein claims to have discovered a new alkaloid in opium, which he has named metamorphia. This makes the ninth alkaloid obtained from that drug.

Bite of the Rattlesnake.—The *Euphorbia prostata* is said to be an antidote to the poison of the rattlesnake. Its virtues reside in the juice of the stem, root, and leaves, extracted by bruising and diluted with water. Dr. Irwin, U. S. A., has experimented to a considerable extent upon animals, and considers it an invaluable specific.—See *Am. Jour. of Med. Sciences*.

Aneurism.—Six new cases of aneurism treated by digital compression, are quoted in the *American Medico-Chirurgical Review* for January, three being traumatic, affecting the palm of the hand, two popliteal, and one aneurismal enlargement of the thyroid gland.

Digital Compression need not necessarily be restricted to the treatment of aneurism and inflammation of the extremities, but is equally applicable to hemorrhage even from large arteries. A man, aged thirty-seven, received a blow upon the right arm, wounding the brachial artery, was taken to the Saumer Hospital, when digital compression was resorted to and continued uninterruptedly for sixteen hours. At the end of forty-eight hours the hemorrhage had entirely ceased.—*Gazette Medicale de Paris*.

The same journal quotes five cases of epilepsy treated by the fresh juice of the cotyledon umbilicus.

Alcohol.—The average annual product of alcohol in the United States is said to be one hundred and eighty-four thousand barrels, worth over seven millions of dollars.—*Proc. Am. Pharm. Association*.

Hernia.—Two cases of strangulated hernia are reported in the *Lond. Med. Review* for Jan., both somewhat interesting and instructive. In the first case, the patient, after eating a large quantity of pickles, complained of pain in the abdomen with constipation, followed by vomiting and severe cramps in the lower extremities, for which he was treated with turpentine stupes, cathartics, morphia, enema, all without affording relief. Poisoning by copper in the pickles was then suspected, but upon applying tests no poison was found. The patient died on the second day, when upon making the autopsy the attendant found a large hernial tumor in the left groin, and was informed, too late, that the man had had double rupture for many years, which, however, had caused him no inconvenience. The second was a case of femoral hernia which after being treated as colic without relief, was subjected to a more critical examination, and though no swelling was perceptible, careful manipulation detected a small, hard tumor, which appeared to be within the crural canal. This was relieved by an operation after the taxis had failed, and the patient rapidly recovered. Both these cases teach us the necessity of extreme care in our examination when hernia may be in the least suspected, as in all cases of vomiting and constipation. In one the tumor was small, not answering the description usually given, entirely unsuspected by the patient, yet was detected by the skill of the medical man, and life saved. In the other, "the hernia went up and came down for years, yet was not thought worthy of notice by the unfortunate man, while the pickles kept the practitioner from seeking for the real origo mali."

Ringworm.—The *Med. Times and Gaz.* contains a clinical

report on True Ringworm by JONATHAN HUTCHINSON, Assistant Surgeon to the London Hospital, &c., in which he reports forty-nine cases having occurred under his observation, and arrives at the following conclusions: "1. True ringworm, or tinea tonsurans, may be defined as a disease affecting either the scalp or the general surface, in which circular patches are formed, on which the hairs break off short, and a slight, branny desquamation is seen, both hairs and epidermic scales exhibiting under the microscope the sporules and thalli of a fungus. 2. Ringworm in the scalp is rarely seen excepting in children; but on the general surface is not very unfrequent in young adults. 3. It is contagious, and spreads by contagion only. 4. It is not attended by any peculiar form of dyscrasia, but on the contrary, often attacks children in perfect health. 5. It is much more easily curable on the general surface than on the scalp, owing to the circumstance that in the latter situation the fungus has obtained access to the follicles of the hairs. 6. Being a purely local disease, ringworm does not require, *per se*, any constitutional treatment. 7. A purely local treatment, if efficiently pursued, is always, and rapidly successful. 8. Epilation, and the use of one or other of the known parasiticides, are the measures of treatment required. 9. There is no real difference between ringworm on the scalp, and ringworm on the general surface. 10. Ringworm, although not unfrequently forming minute vesicles, has no true analogy with herpes."

Iodide of Potassium in Chronic Ophthalmia.—HAMILTON LABATT reports in the *Dublin Medical Press* some very protracted and obstinate cases of chronic ophthalmia, chiefly of a strumous type, successfully treated with the iodide of potassium. To an adult who had suffered for upwards of six years, and whose "case presented all the characteristic features of that tedious and intractable form of chronic ophthalmia with which every experienced surgeon must be familiar," he gave an ounce of the iodide of potassium mixture (℞ij ad ℥ viij) three times daily, and water fomentations, as hot as could be borne, to be used at bed-time. After a steady perseverance in this treatment the improvement was so decided that he brought four of his children laboring under the same disease, to seek relief. In these cases the iodide was the only remedy used, the doses being in proportion to their ages. Though the improvement was not so prompt as in the father, after a few weeks there was a marked amelioration, which gradually progressed to the time of writing, when the father and one child are reported well, the other children nearly well.

Gallic Acid.—In the *Dublin Hospital Gazette* Dr. W. FRAZER publishes some therapeutic notes in which he mentions the effects of Gallic acid in diminishing the expectoration. He frequently prescribes it with a fair amount of success, for the purpose of controlling the exhausting pulmonary discharge in cases of phthisis. He has sometimes noticed the expectoration to acquire a deep black or ink-blue, traceable to the use of the drug.

Tannin and Morphia.—He substitutes an ointment composed of tannin and morphia for the ordinary "gall ointment with opium," in the treatment of hemorrhoids. He was led to this from observing that the powdered opium is always so gritty as to form a painful application to the inflamed part, for which he substitutes from ten to thirty grains of tannin, from one to five grains of either the acetate or muriate of morphia to one ounce of lard on spermaceti ointment.

MEDICAL COLLEGE OF VIRGINIA.—The annual commencement of this College was held on Tuesday, March 5. Prof. Gibson conferred the degree of M.D. upon fifty-nine graduates. Prof. McLean addressed the students and announced the successful competitions for the prizes of \$50 each, for the best Medical and Surgical Essay; the first being awarded to Dr. Josiah H. White, for his Essay on Malarious Diseases, and the second to Dr. Mason D. Elsey, for his Essay on Tetanus. Professor Conway delivered the Valedictory to the graduates.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, Feb. 27, 1861.

DR. A. C. POST, PRESIDENT.

DIASTASIS OF THE LOWER EPIPHYSIS OF THE LEFT FEMUR. SINGULAR DEFORMITY OF THE EXTREMITY. TOTAL EXCISION OF THE KNEE-JOINT; RESTORATION OF THE LEG TO USEFULNESS.

DR. LOUIS BAUER presented a specimen illustrating the above points, and gave the following account of the case:—The patient, Francis Shaw, a healthy and robust looking lad, fourteen years of age, was sent in October last to the clinic of the Brooklyn Medical and Surgical Institute, for the purpose of ascertaining whether any, and what kind of mechanical appliance could be suggested to render his left leg in any degree better fitted for the purpose of locomotion. The singular deformity presented by the applicant enlisted my interest to such a degree as to have both his likeness and cast taken, which I herewith lay before the society that his former appearance may be realized. We learned from the patient, that at the age of seven years he was struck by another boy in the left knee with a piece of iron rod, and that instantaneously his extremity was rendered useless. A physician who soon after visited him, pronounced the injury a simple sprain, and advised rest and cold applications. Pain and swelling having gradually subsided, at the end of the third week the boy began to walk. From that period the deformity dates, and since then steadily grew to the extent it presented when first examined by me. In walking, the appearance of the patient was very awkward, the body being thrown forward and to the left, so much so, that the knee almost touched the ground. In standing, the left extremity, in consequence of the mal-position of the leg, was three inches shorter than the right, and by throwing the whole weight of the body on the affected side, the shortness would be increased some inches. When placed on the table the conditions of the leg were recorded as follows: extremity slightly attenuated, but of the ordinary temperature; the left thigh so much adducted as almost to touch the right knee; the leg articulated with the thigh at an angle of about 45°; foot somewhat œdematous. The knee-joint is very loose, so that the tibia can be slid laterally and rotated, turning the toes in or out at pleasure. The limb *cannot be straightened*, but the lateral angle increased to 90° nearly. In addition to the lateral deformity, there is a slight posterior inclination. The ordinary position is such, that the calf occupies the inner and the tibia the outer surface, the toes being greatly everted. Whilst the vertical flexion at the knee is greatly constrained, the foot moves freely. The knee-joint presents a very peculiar shape, from the fact that the internal condyle of the femur protrudes greatly downwards and inwards, without being in contact with the corresponding articular surface of the tibia, the margin of which can be felt at the base of the former. The external condyle is entirely absent, and hence an oblique surface is formed on which the tibia articulates. The external articulating surface of the tibia consequently projects beyond the smaller articulating surface of the femur. The patella is thrown out of place, and with it, the quadriceps muscle has shifted externally. The popliteal artery can be felt pursuing an angular course, in conformity with the position of the leg. The tendons of the adductors and flexo-adductors are dislocated behind the internal condyle, but none of the muscles are contracted.

This is substantially the condition which the knee-joint presented, and Figure 1 will afford an approximate idea of the deformity.

As to the cause and nature of the deformity, we were in serious doubt. The theory of a fracture of the external

condyle suggested itself very strongly, but it could not account for the perfect absence of the external and the material increase of the internal condyle. Again, the fact



that the attending surgeon, at the time of the accident, had failed to recognise the fracture, together with the statement of the parent, that there was no noticeable deformity before the patient commenced walking, seemed to oppose the idea of a fracture. Besides, diastasis of the epiphysis of the femur was much more likely to occur than fracture at that tender age, more especially as the injury had been inflicted with considerable violence on the parts themselves. It must be confessed that we were anything but certain as to the actual cause of the difficulty, although there could be no doubt as to its dependence on the received injury.

As regards relief by mechanical appliances, we gave no encouragement, for no appliances of this character would have been practicable. In that condition the limb was utterly useless. The boy could neither stand upon it with sufficient firmness to prosecute any work, nor walk upon it for any length of time without great inconvenience and pain. Two ways presented themselves to render it a comparatively useful member, namely, amputation at the knee-joint, with the subsequent application of an artificial leg, or total excision. We had no hesitation to recommend the latter as preferable. The patient was healthy at the time and obviously of good constitution; the bones and soft parts to be operated on were not diseased; therefore, if any case was qualified for that operation and promised a satisfactory result, it was obviously the present one. This all seemed to be plain enough, and yet different views must have prevailed with other surgeons to whom the case had been presented prior to the time of my taking charge of it. Whatever may have been the opinions of these gentlemen, and how much deference we were inclined to yield to their superior experience and judgment, we could conceive no contra-indication to ex-section, nor did any alternative offer itself to my mind.

The operation was therefore performed on the 9th of October last, quite a number of prominent medical gentlemen being present. We do not wish to trespass upon the valuable time of the society by going into the details of the operation, which presented nothing to interest your atten-

tion, and which perhaps, is not a legitimate subject at this place. Suffice it to say, that we preferred to remove the patella and all the serous membranes as far as practicable; a part of the wound healing by first intention, and the rest very kindly by granulation; the strength of the patient bearing up firmly all the while. A fistulous track from the external angle of the wound towards the supra-patellary bursa required dividing, and this was the only untoward circumstance that happened during the whole treatment. At the end of the eighth week, the patient got up,



when Figure 2 was taken. The knee-joint, although the wound had by this time almost entirely closed, was still enlarged.

On the 19th inst. (February), the boy was again exhibited at the clinic, when he presented the same conditions which the society may now observe, and which may also be perceived in the daguerreotype No. 3 (Fig. 2,) and in the second plaster cast. His left leg is about two inches shorter than the other, is slightly flexible, denoting union by firm and short fibrous tissues. The leg is firm and straight and a most useful member, bearing the weight of the patient in standing and walking *without* the aid of crutches or a cane. The wound has firmly closed, and all pains and inconvenience have entirely subsided.

What will, however, interest the society most, is the specimen that has been removed and now exhibited, namely, the epiphysis of the femur and tibia, and the patella. The two former have been fastened together with wire, in the relative positions they were found to occupy. You perceive still the intermediate cartilage between the shaft and epiphysis of the femur; its continuation through the internal condyle is, however, already ossified. In holding the fragment in its proper position, you also note that this cartilaginous line forms with the axis of the femur a very acute angle, and you will miss the external condyle, while the internal one is greatly enlarged, overlapping the articulation to such an extent as to form no part of it. The remaining parts of the joint are in their full integrity, save being shaped to meet the altered position. This is particularly noticeable at the patella, which is uneven on its posterior surface, and the inter-condyloid fossa of the femur is spread, so to speak. The articular surface of the

tibia is much more convex than we usually find it, and this accounts for the ready shifting and sliding of the surfaces.

With this preparation before us, we will have no difficulty, doubtless, in determining the nature of the injury and the ensuing deformity. It seems to me that this case was one of diastasis of the lower epiphysis of the femur. The fact that the fragment retained its place, and that careful motion did not produce deformity nor erepitis, induced the attending surgeon to pronounce it a simple contusion. Had the patient observed rest for a sufficient length of time to secure union of sufficient strength, there can be but little doubt as to a good termination. But the boy commenced to walk before union could have been established, and bearing his weight on the injured bone, the fragment gradually slid from the horizontal position into one almost vertical with the shaft of the femur, and a corresponding mal-position of the leg ensued. Thus the joint, with all its parts, turned laterally, its transverse diameter forming, with the axis of the femur, an oblique instead of a right angle. What seems to be at first glance the lower circumference of the internal condyle of the femur, is, in fact, the internal surface. The external condyle has disappeared by absorption.

Correspondence.

TREATMENT OF REFLEX PARAPLEGIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In your issue of March 30, I notice M. Gonzalez Echeverria, M.D., prescribes belladonna and ergot of rye in two cases of reflex paraplegia, one from stricture of the urethra; the other from the same affection and cystitis of the neck. Now, inasmuch as he quotes or refers to the researches of Dr. Brown-Séguard, he will, I presume, allow a criticism on his treatment with the above-named remedies, by a comparison of it with the instructions of the latter gentleman, as they come to me in *Braithwaite's Retrospect*, part 42, page 29.

It is there represented that Dr. Brown-Séguard affirms that there are two classes of remedies applicable to paraplegia, aside from those which, in the reflex kind, have reference to the relief of the external or exciting cause.

1. Those which diminish the amount of blood in the spinal cord, as mercury, ergot of rye, and belladonna.
2. Those which increase the amount of blood in the spinal cord, as strychnine and brucine.

In close connexion with his remarks on this classification, he says, "Reflex paraplegia, as pointed out by its whole history given in this lecture, is accompanied, and most likely produced by an insufficiency of the amount of blood in the spinal cord; it ought not, therefore, to be treated by those remedies which diminish the quantity of this fluid in the spinal nervous centre." Again, he says, in his rules of treatment—

3. "Have the spine placed much lower than the head, the arms and the legs, when the patient is lying in bed, so as to increase the amount of blood in the spinal cord."
4. "Employ those remedies that have the power of augmenting the vital properties of the spinal cord, in increasing the amount of blood in this nervous centre."

To me, it is very clear, from the above extracts, that Dr. Brown-Séguard would discard the use of belladonna and ergot in reflex paraplegia; among which he mentions cases related by Dr. Hutton, and by Leroy d'Etiolles, jun., which were referable to the same cause, viz. stricture of the urethra due to gonorrhoea. My object in writing is to call attention to this discrepancy, hoping thereby to induce further remarks on this most interesting subject.

Yours, &c.

SAMUEL PETERS, M.D.

CRESCENT, N. Y., April 2, 1861.

NEW CAUSTIC-HOLDER.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I send you the following description of a new caustic-holder, in the belief that it possesses very decided advantages over any other instrument of the kind heretofore used.

The three requisites for a good caustic-holder are: First—Indestructibility. Second—Facility of charging; and Third—Protection of the caustic when not in use or when being carried.

Although many patterns have been made, I have hitherto found none to answer *any one* of these conditions. I think, however, that the instrument which is figured in the margin will fulfil all of them.

I. The tube is of hard rubber, with a screw-thread cut in the bore, to give a rough hold on the caustic. II. The caustic need not be handled at all, but if lying on the table, by simply pressing the forceps open the stick of caustic can be picked up or dropped without contact of the fingers. III. The tube is sufficiently long to form a sheath, closed at the lower end; for by holding the instrument erect and slightly opening the blades, the caustic drops into its case, and upon reversing the holder and opening it with its end an inch or so from the table, the caustic again drops out as far as is required.

Messrs. Tiemann & Co., and Messrs. Otto & Reynders, are both manufacturing my holder, which I trust may be found of use to my professional brethren.

F. S. EDWARDS, M.D.

No. 154 West Twenty-first street, }
April 1, 1861. }

INHALATION OF NITRATE OF SILVER.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—At a time when laryngoscopic investigations seem to be somewhat the order of the day, we may with propriety be engaged in inquiring into the best methods of applying our remedies in the same direction. It is with this view that I again contribute to your journal the result of my experience and investigations in applying nitrate of silver to the larynx, trachea, and bronchial tubes. For some ten years now, I have in my own case of chronic bronchitis, and in my practice, given successively thorough trials of the probang, the caustic pulverizer, the quill, reed, glass, and tin tubes. My last experi-

ment resulted in the plan which I submitted to your publication a few weeks ago. With the small tubes, whether used with the powder placed closely in contact with their ends, or placed within their orifices or in the state of floating particles, I found that the powder was forced in a too direct and concentrated condition to pass freely down the trachea. Obeying the law of centrifugal force and the necessity of condensation by their limited diameter, the greater portion of it was arrested in the region of the back part of the pharynx, and this too in the exact ratio of the contiguity of the tube with the epiglottis and the force of the inspiration.

With the caustic pulverizer I found the inconvenience of sprinkling the whole mouth, while but a small portion entered the trachea, and I feared that too large a particle

might be thrown off from the brittle pencil to admit of safe inhalation, notwithstanding we are told that "some of our prominent (?) men have recommended *one drachm* of nitrate of silver in solution to be injected into the lungs." To obviate the above difficulties, I conceived the method of placing the powder in a pint-glass stoppered jar, generally of the *strength* of one part of nitrate of silver to two of sugar of milk, and in the *quantity* of not over two or three drachms of the triturated powder—of agitating this in order to secure floating particles and of inhaling through a glass tube of an inch in diameter. Now it may be asked why I employed so large a jar? Simply to obtain space and atmosphere enough to secure a nebula of the finest and most vapory particles of the powder; the whole nebula in a pint or quart jar not weighing, in my estimation, more than from two to four grains. I employed so large a tube, both to prevent, in the act of inspiration, a concentration of the particles, and also by its size to depress the tongue and so insure a more open space for passage. With these simple implements, and training myself to gentle inspirations in order to avoid centrifugal force, I succeeded in passing the attenuated powder freely into the subdivisions of the bronchi, and the proof that I did so succeed, were the unmistakable sensations.

In the MEDICAL TIMES of March 23d, I noticed that Dr. Fetter, in reply to some of my restrictions upon a method which he employs, retorts with a fling of derision. In reply, I have simply to say that my remarks were founded upon my own individual experience, and they were given as such; a foundation upon which he does not base his criticisms in reference to my method. His ironical and uncalled for enlargement upon the term "*heap*," his positive asseveration that the powder cannot pass in a too concentrated body through his tube; his directions to place the tube as near as possible to the epiglottis, to make a strong inhalation; and the assurance that in the experiment upon himself every particle of the powder passed into the trachea, were statements which, though doubtless sincerely made, are not in accordance with the laws of natural philosophy, with anatomy, or physiology. Placing a tube as near as possible to the epiglottis will certainly ensure a contiguity of not over a half inch from the back part of the pharynx, while its distance from the entrance of the larynx must be over an inch. The "*heap*" of powder has but a small chance, therefore, of being scattered into a very attenuated powder, and the impetus under *strong inhalation*, must lodge a large portion upon the parts leading to the oesophagus; sufficient at least to bring on an effort of vomiting, as in Dr. F.'s case. If I am not much mistaken, it is pharyngeal irritation which would bring on the reflex phenomenon of vomiting, and not laryngeal.

But without further discussion and theorizing upon a matter which can be so easily settled by actual trial, I shall here let the matter rest; holding myself in readiness to submit our respective methods to the investigation and candid judgment of the disinterested medical public.

Yours, &c.

W. H. STUDLEY, M.D.

86th Street, YORKVILLE.

CHLOROFORM—A SUGGESTION AS TO THE CAUSE OF FATAL RESULTS FROM ITS INHALATION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

THERE has been much discussion of late upon the fatality caused by the inhalation of chloroform. We know several surgeons who will not use it under any circumstances. Within the last year we have met with three peculiar cases in which the patient seemed upon the point of suffocation. In the first of these a large spoon was near, which was seized and thrust into the mouth, and two fingers thrust over it to the throat. The depression and bringing forward of the tongue by this means caused an instantaneous gasp, and breathing was resumed. The other two cases were similar, the tongue being thrown back, closing the

epiglottis; relief was given in the manner before described. While in Albany, a short time since, these cases were mentioned to Dr. Swinburne of that city. He said that not only had he arrived at the same conclusion, that death from inhalation of chloroform was in most instances caused by suffocation, owing to the tongue falling back and preventing air from entering the lungs, but that he had performed experiments upon dogs, and *demonstrated it to be a fact*. To one dog he had given one and three-quarter pounds of chloroform, and several times during its inhalation, respiration ceased, but was recommenced by drawing the tongue forward. He said that respirations did not cease if steadily administered for a length of time, when the tongue was kept well forward. It is only necessary to mention the fact; if a discussion were necessary upon the subject, we can give our theory and support it by the result of the published autopsies. Yours, &c.,

SAML. R. PERCY, M.D.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

THE post-mortem appearances furnished by the case reported by me as having been recently operated upon for varicose aneurism of the side of the neck, were exhibited by Mr Syme. He stated that he operated under the impression that it was varicose aneurism; that during the progress of the case it had seemed more like aneurism by anastomosis, and that the post-mortem appearances showed a highly arterial aneurism by anastomosis, consisting of very many arterial twigs, derived principally from the lingual and facial arteries, opening into venous sacs, by orifices visible to the naked eye. The man died from effusion into the serous cavities. An exostosis of the great toe was removed by excision, and not by amputation.

Several cases of frost bite were exhibited. Mr. Syme exhibiting a decided preference for simple warm water dressings. A large fatty tumor was removed from the posterior fold of the axilla, as also a small subcutaneous fibrous tumor from the forearm.

8th January.—Prof. Laycock gave a very able résumé of the treatment of gout. He had used cod-liver oil in strumous gout with very great benefit, long before its employment in phthisis. For chronic gout this sometimes acts like a charm:—

R. Acetous Ext. Colchicum, gr. $\frac{1}{2}$

Blue pill, gr. $\frac{1}{4}$

Sulphate of Iron, gr. $\frac{1}{4}$ to $\frac{1}{2}$.

To be taken twice or thrice daily; or a small dose of strychnine may be substituted for the sulphate of iron. He considers that colchicum is often given in too large doses, which, producing purging, do not exercise any specific effect upon the disease. Two or three grains of iodide of potassium may be given once a day, while using the above pill. He doubts the propriety of irritating applications to gouty joints, believing, as he does, that they often of themselves cause morbid effusions and deposits. He has seen blisters that were applied to a perfectly healthy knee-joint, under the impression that the pain there existing, and which arose from morbus coxarius, was caused by disease of the knee; he had seen a healthy knee-joint thus treated become enlarged, by deposit around, and effusion into the joint.

PROF. SIMPSON remarked to-day, while extolling the sometimes wonderful effects of chloroform in relaxing a rigid os uteri, that shortly after chloroform was discovered, while in Stuttgart, he was asked by M. Sedillot to give chloroform to a man who had a dislocation of the shoulder, of long standing. It had resisted the most vigorous attempts at reduction. After much difficulty Prof. S. succeeded in chloroforming him profoundly, when Sedillot merely touching the arm, the bone was reduced, amidst the plaudits of the students.

January 10th.—PROF. SYME exhibited a leg that he had removed from a man for severe compound fracture. The

accident occurred six weeks ago, and profuse suppuration was wearing out the man. The specimen was shown on account of its being a good example of necrosis of the whole thickness of the tibia, thereby rendering amputation imperative. Prof. S. related a case where, many years ago, being called to a gentleman with severe compound fracture of tibia and protrusion of end of the bone through the skin into the ground, he had sawn off the protruding splinter and nude bone. In consequence of this removal of bone, osseous union never took place, and amputation was necessitated. A specimen was also shown of the leg bones removed from a young lad, where nearly all the tibia had perished without any reproduction of bone. Where there is but one bone, of course much shortening from death of osseous tissues can take place without great impairment of function. Perineal section was now performed upon a patient who was admitted into the hospital some time ago, with great extravasation of urine. Free incisions evacuated the urine from the cellular tissue in time to prevent sloughing. Although constant attempts had been perseveringly made to restore the urethra to its normal size, if the use of bougies was interrupted for a few days, the stricture became as bad as ever. An incision made in the scrotum at the time of his first admission had never healed, and furnished an exit for about one-half of the urine. Under these circumstances perineal section was considered advisable, and to-day performed. It will be interesting to watch the issue of the case. A case of morbus coxarius was shown, the same that was spoken of by me some time ago, as having the knee-joint straightened under chloroform, in which diseased action seems to have entirely ceased. In fact, Prof. Syme said that the two months' confinement in the long splint seemed to have eradicated the disease. Prof. S. remarked, that even after the occurrence of suppuration he considered rest, absolute rest of all the joints of the lower extremity, as competent to a cure. He said he had seen a case where a celebrated London surgeon had been so misled by the great contraction of muscles around a diseased hip, as to consider the contraction the primary disease, and to divide the muscles for the relief of the trouble, when all the disease was in the hip, lying perdu.

Medical News.

MARRIAGE.

SMITH—STOKES—In Philadelphia, April 4, by the Rev. Joseph Walker, Jerome C. Smith, M.D., of New York, to Miss Sallie R. P. Stokes, daughter of Charles Stokes, Esq.

DEATH OF SIR WILLIAM PYM.—This eminent physician died on the 15th of March, aged 85. He was the son of Mr. Joseph Pym, a descendant of John Pym, *temp.* Charles I. He was the author of a treatise on yellow fever.

At the last meeting of the Academy of Medicine, the subject of Morbus Coxarius was introduced by Dr. Post, in an elaborate review of its pathology and treatment. The discussion was continued by Dr. Bauer, of Brooklyn, Dr. Watson, Dr. Sayre, and others. The meeting was largely attended, and great interest manifested in the discussion.

THURBER MEDICAL ASSOCIATION.—This is the title of a Medical Society, says the *Berkshire Medical Journal*, composed of medical gentlemen living in and around Milford, in a small portion of Worcester, Middlesex, and Norfolk counties, Mass. It consists of twenty-two physicians, from twelve towns. It holds monthly meetings, at which it is the duty of members to read original papers. The Society is named in honor of the late Daniel Thurber, M.D., of Milford. An endowment of \$500, by Horace B. Chaffin, Esq., of New York, a native of Milford, and an additional contribution of \$400, by the citizens of the place, have enabled the Society to found a library.

Original Lectures.

LECTURES ON DIPHTHERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE III. PART I.

In the insidious cases the disease sometimes appears to be very speedily fatal—Has diphtheria an eruption?—The duration of former epidemics from five to twenty years and more, of the present one in France forty-two years, we shall probably see the disease for years to come—Mortality, a difficult problem, it varies as the type of the disease varies, simple febrile tonsillitis must not be grouped with the membranous affection—Mortality less among adults than among children: greatest from three to nine years of age—Relations of diphtheria to age and sex.

DEATH sometimes appears to follow the first recognised symptoms of diphtheria, with startling rapidity. In all that relates to the physician's duties, in all its practical bearings, this appearance is a reality. These cases when carefully examined are found to be instances, such as have been already explained, of the insidious invasion. But until parents or patients themselves, if adults, have learned to appreciate the first footholds of the stealthy approach, have learned, indeed, that while diphtheria is prevailing, any catarrhal symptoms demand inspection of the throat, or any sign of coryza, the examination of the nasal passages and the cervical glands, such cases must continue to excite alarm and to be practical realities. It is of little avail that Bretonneau informs us that there is no such thing as the sudden explosion of the disease; that its ambush can be discovered by proper instruction and examination. There is so much of local anaesthesia, or at least so little pain, in the tonsillar and laryngeal diphtheria, so little disturbance of the general health in the insidious cases, that the medical journals must still expect to report instances of this affection fatal, apparently in a few hours. You will perceive the force of these remarks if I cite two or three cases. In the report of the Transactions of the New York Medical and Surgical Society (American Medical Times, July 28, 1860), may be found a case recorded by Dr. Allen, in which death occurred twelve hours after the first croupy symptoms were noticed. But this child had been ill for many days with suppurative tonsillitis, and the membrane, when first seen, "covered the uvula and extended down into the pharynx as far as could be seen, a large patch." It had been forming, probably, for one, two, or more days before the croupy symptoms attracted attention.

A child seen by Drs. Bloodgood and Allen, referred to in the same report, died the evening after the first visit of the physician. But this child had complained of sore throat for three or four days, and the membrane, when seen, was already very extensively diffused.

In the same connexion Dr. Post stated, that he had seen a lady, whose child had just died of diphtheria, herself attacked with the same disease. She died "in the course of the night in which she was attacked." In this instance, it is probable from analogy, that through anxiety and grief for her child, this lady overlooked or neglected the initiatory symptoms of sore throat. In any view, the cases are instructive.

Cases sometimes occur that raise the question, whether there is ever an eruption in diphtheria. The following will illustrate the kind of cases in which the doubt arises.

Feb. 1, 1861.—Mr. F.'s son, aged 2½ years, fell sick on Friday, seven days ago, with fever, sore throat, and cough. He was not seen by a physician till the following Tuesday,

when Dr. Husted regarded the case as one of diphtheria. On Wednesday he noticed what had attracted the attention of the mother the day before, viz. a slight efflorescence over most of the body, like that which marks the beginning of the scarlet fever eruption. This nearly disappeared on Thursday, and on the same day the voice became hoarse, and the child began to throw its head back for easier respiration. Friday evening the voice was extinct, the cough rough, the tonsils considerably swollen and dark, having their inner borders lined with a false membrane, white on the edge, but on the surface stained of an inky black by the iron he had taken; the glands of the neck were considerably swollen, and had been swollen from the first or second day of the illness. The head was now constantly thrown back, although the respiration did not appear to be extremely difficult; the pulse was about 140, and of fair force; no extraordinary drowsiness; the skin was scarcely redder than natural, and there was no appearance of desquamation; there had been an active diarrhoea for some days; the tongue was furred and moist, the papillae not unusually red or prominent; swallowing appeared to be difficult, more because it occupied time needed for respiration, than from any pain it caused; no regurgitation by the nose, no membrane in the nostrils, and no coryza. He died of suffocation on Monday following.

There is one other child in the family. He had scarlet fever two years ago, and has not now been sick; there are, however, many children sick with scarlet fever in town, and a considerable proportion of them have membranous sore throat.

The question then is—Was this slight symptom an efflorescence belonging to diphtheria, or was it an incomplete development of scarlet fever?

When we consider the power diphtheria possesses of modifying the eruption of the latter disease, we shall perhaps be led to believe that the two affections were concurrent. This conclusion would be in accordance with opinions generally entertained by the profession. In the best descriptions of diphtheria there is no reference to any efflorescence. Indeed when an eruption has occurred, as in the epidemic described by Dr. Fothergill, Dr. Starr, and Dr. Huxham, occurring in the middle of the last century, it is now assumed that "diphtheria and scarlet fever were combined." While, however, the profession generally deny the existence of any eruption in uncomplicated diphtheria, the Lancet Commission quoted by Dr. Thayer, reports, of a certain epidemic, that the disease "was often accompanied at its commencement by a miliary exanthema, which appeared on the arms, clavicular region, and at the borders of the axillae." "This," they say, "has occurred more than once in England, and this eruption has been commonly, but erroneously, described as that of irregular or suppressed scarlet fever, with which it has nothing in common."

I must now add that diphtheria, though an epidemic affection, is not, like cholera or yellow fever, a disease of a single season, at least so far as relates to a state or country. It often has a limited duration in villages and among a scattered population, but in large towns and in the country at large there is much reason to apprehend that, once established, it will continue for years. The great Spanish epidemic began in 1581, and had not ceased in 1600. That of Italy which soon followed, according to Dr. Sims (Mem. of Lon. Med. Soc., 1792, vol. 1, p. 450), first appeared in Naples in 1618, "where it continued its ravages for twenty years." The disease described by Fothergill, Starr, Cotton, and Huxham, began in London in 1739, and was seen there more or less for seven years before it appeared in other parts of England, and was still witnessed in the smaller towns in 1753—having a duration of fourteen years at least. The Parisian epidemic of 1743 lasted at least five years. That in Sweden began in 1755, and was still raging when Wilke gave an account of it, ten years later. Dr. Jacob Ogden, of Jamaica, Long Island, writing in 1769, out of "compassion for the distressed people of Boston and

Oxford," speaks of the *malignant sore throat distemper*, as a disease he had been familiar with for "twenty years;" and again in 1774, his language implies that it still lingered in the country. It was between these dates, that is, in 1771, that Dr. Bard published the paper relating to his rather limited experience in the "Angina Suffocativa, or the sore throat distemper, as it is called by the inhabitants of the City and Colony of New York." This title implies that the disease was not a new thing to the inhabitants of that colony, but how long it had then existed can be better inferred from Dr. Ogden's letters, just referred to, which you may find in the fifth vol. of the Medical Repository, p. 97. The reappearance of the disease in the present century was at Tours, in France, or rather in La Vendée, whence it was immediately transferred to Tours by the march of soldiers, in 1818. It still lingers in France, and lately, forty-two years after its first appearance there, M. Gendron, a distinguished physician of Tours, is reported to have died of it. It would be interesting, as I have already said, to know if this is the physician whom Bretonneau treated for what was regarded as inoculated diphtheria in 1843. M. Herpin's sickness, already alluded to, occurred in that year. The disease, if it has not continued, has revisited Tours several times since it was first seen there. These statements cannot fail to teach you that it is highly probable we shall not see the end of this visitation of "The Sore Throat Distemper," for years to come; that it will continue for the longest time in the largest towns; that for years it will be found in one and another of our towns and villages; and that in many of them it will recur more than once, before the present epidemic constitution is replaced.

We now turn to the mortality of diphtheria. This is a complex problem. Its fatality in its different occurrences and in different places varies more than that from any other disease I can name to you. In certain families, schools, and villages, the deaths among those attacked are more numerous than from any other epidemic affection. The proportion is not less than that from membranous group or tuberculous meningitis. Under other circumstances, no more than one case in forty or fifty proves fatal. But this remarkable difference, while there is really the membranous inflammation, is less embarrassing than the fact that many physicians, who have reported their observations, have not separated their cases of simple tonsillar inflammation without any pellicular exudation, from those of true diphtheria; but on the contrary, professing to regard the two affections as arising from the same cause, since they prevail at the same time, have grouped them together, and so have greatly reduced their proportion of mortality. I have already said that there is but one way of treating this matter fairly. It is to make the membrane the basis of classification. This will separate diphtheria from everything but the true croup; and the marks soon to be indicated will commonly be sufficient to establish the distinction between these. Indeed the epidemic character of one and the sporadic occurrence of the other will, of itself, be enough, at least in the great majority of instances. It may be said, that this distinction between simple and diphtheritic sore throat is not scientific. It may be so; but it is better than scientific, it is practical. The aim and end of science is the improvement of man's condition. If this improvement can be but attained by dividing into two groups what nature allows us to class as one, no rule of sound reason can forbid the separation. Besides, science does require us to make distinctions when there are differences. And here we have the broad difference that one disease is ephemeral, with a uniform tendency to recovery; the other is often terribly fatal, or it is liable to a long train of sequences of a serious, if not of an alarming character.

An example will enable you to understand how far I would have you carry the distinction. Five children in one family had sore-throat, all occurring within the same week. The same cause had probably operated on all, but the effects resulting from that cause were different in the

different children, and the difference, no matter how produced, was cardinal so far as the safety of these patients was concerned. Three of them had active fever, flushed face, pain in swallowing, the tonsils were swollen and red, and on the anterior and inner surface of each were half a dozen or more yellowish white spots. The matter constituting these spots was an opaque concretion from the follicles of these organs, and each mass was nearly globular in shape, and was embedded in the tonsil. To a person not familiar with their appearance, they might have been mistaken for false membrane; but they were rounded, and the false membrane is flat; they were yellowish-white, the membrane is very rarely, if ever, of this color; they were isolated, the membrane forms at separate points, without coalescing, only in exceptional cases. These all recovered after three or four days, and their condition excited no apprehension for their safety so long as the diseased action went no further. The two other children had ash-colored membranous patches on the tonsils. In one, the membrane did not extend beyond the fauces, and although it fell off and formed again, the sickness was not very grave, lasting about ten days. In the other it penetrated into the larynx and proved fatal in three days. A physician's pride is in his cures, yet you may not be tempted to say, under parallel circumstances, that you had five cases of diphtheria and lost but one of them. There were but two cases of diphtheria. A physician reports that he has seen two hundred cases of diphtheria, and has lost only three or four per cent. Another physician practising in the same city, in the same epidemic, in the same class of society, and adopting the same general plan of treatment, has seen a hundred cases, and has lost thirty per cent. The latter states that he only counts the instances of membranous disease; the first considers his cases all diphtheria, but does not say that membrane is his test. Would you not be compelled to hesitate before you admitted these two reports into the same generalization? Physicians who have had extraordinary success, should tell us in so many words, that all their cases, or if not all, how many, exhibited the membrane. You will not find this precision when you wish to ascertain, on a large scale, the law of mortality. Thus then is this problem complicated. But we must do the best we can with the material within our reach.

From the "Medical History, General and Particular, of Epidemic, Contagious, and Epizootic Diseases, in Europe from Remote Times to our own Days," by Ozanam (Vol. III. p. 279) we learn that, so far as he could ascertain the facts, the mortality of thirty-nine epidemics of what is now regarded as diphtheria, between 1559 and 1805, was as high as *eighty in the hundred* of those attacked. The Commission of the French Academy of Medicine (Martin Solon, and others) reported in 1833, that, in the French epidemics from 1771 to 1830, the deaths among those attacked by croup very often complicated with gangrenous angina, were as *one to four*; among those attacked by angina, membranous and gangrenous, simple or complicated, there was the same mortality, that is *one in four*. (Mem. Acad. Vol. III. p. 429.) Trousseau found, when pursuing his inquiries regarding cutaneous diphtheria, that in some families and hamlets frightful havoc had been made by the throat disease. In one family *seven children had been attacked, and six died*. In one hamlet *ten in twelve* had died; in another *nineteen in twenty-one*. Dr. Thayer (Berk's Med. Jour.) states that Dr. Beardsley had in Orange, Conn., among the pupils of a school, and in three families where the pupils boarded, *fourteen deaths in fifteen cases*. In the military school spoken of by Bretonneau, and referred to under the head of contagion, four deaths had occurred in as many cases, when the system was adopted of examining the throats of all the pupils daily; by this means sixty cases were seen at the commencement of the disease, and all were successfully treated; the mortality was thus, including a nurse that died, *one in thirteen*. Daviot states (Mem. on Diphth., p. 363) that in the years 1841-2-3-4, he treated four hundred and sixty-one cases,

and that he had forty deaths, a mortality a little better than *one in eleven*. Dr. Willard, in giving a history of the late Albany epidemic (N. Y. State Med. Soc. Trans. 1859), feels authorized to reckon the cases in that city at two thousand, and the deaths as one hundred and eighty-eight, the ratio being *one to about ten and a half*. Dr. Kneeland (Am. Med. Times, Jan. 26, 1861) living in the central portion of this State, ascertained that among eighty persons attacked in his neighborhood ten died, or *one in eight*. Among the facts collected by Dr. Thayer are the following: six cases in Pittsfield, Mass., and three deaths, *one in two*; twenty-four cases reported by Dr. Bostwick of Red Rock, N. Y., and five deaths, *one in five*; eighty-one by Dr. Meacham of West Stockbridge, Mass., and eight deaths, *one in ten nearly*; one hundred and thirty-six by Dr. Wells of Menomonee, Wis., and four deaths, *one in thirty-four*; eighty-five cases by Dr. Lawrence of North Adams, Mass., and *no death*; "forty or fifty" cases by Dr. Holmes of South Adams, and *no death*. Dr. Jacobi of this city says (Am. Med. Times, Aug. 18, 1860), "Of five hundred cases we believe that we have lost not more than thirty," about *one death in seventeen cases*. Dr. Watson, in a paper read before the New York Academy of Medicine, and published in the Am. Med. Times, states that of one hundred and forty eight cases treated by himself only two proved fatal, *one in seventy-four*; and in one hundred that he saw in the practice of other physicians of the city only four died, *one in twenty-five*; in all together about *one in forty-one*. Dr. Woodward of Brandon, Vt., and his neighbor, Dr. O'Dys (Am. Med. Times, Dec. 5, 1860), treated *thirty cases each, without a single death*, and Dr. Woodward is careful to state that his cases were all true diphtheria. In an adjoining town where the disease occurred before it reached Brandon, he says *almost every case was fatal*. Statements that vary so widely as these do cannot be usefully generalized. If they all relate to the same type of disease, they show the impossibility of applying a general average to particular epidemics. My own opportunities of seeing the affection force upon me a great mortality; but from what I have seen, and chiefly from what active practitioners here tell me, without any attempt at numerical computation, I should set down the deaths in New York among those having the *membranous* disease, including membranous sore throat in scarlet fever, as one in six or eight. But these conjectural estimates are worth very little. Indeed, accurate statistics will not avail much in informing you what to look for in any commencing or expected epidemic. I have already told you this, and I repeat it here because I wish you to be fully aware of the varying types of the disease. In reviewing what has just been said, you notice that, while in one place there is not a single death among sixty persons attacked, by what the writer assures us is true diphtheria, in an adjoining town it destroyed nearly all whom it touched. This difference you may ascribe to different plans of treatment. I cannot say it was not so in that instance. But you will hear it said that the disease is very grave in one place, and very mild in another; that the earlier cases in a school, hospital, or town, are attended by a greater mortality than those which occur later in the epidemic. This is doubtless true, and it is true often because the type of the disease is different even in adjoining towns, and because its character changes as the epidemic advances. I am told by a leading physician of Massachusetts, that in a town within the range of his consultation practice, nearly every case is fatal, not by the direct effects of the membrane, but by prostration and collapse, without a sign of dyspnoea or cyanosis; while in another village five miles distant the disease has the characters of an open inflammation, from which the mortality is comparatively inconsiderable, and when death occurs it is almost always caused by laryngeal and tracheal obstruction through the extension of the membrane from the fauces. I have already quoted statements coming from two physicians of that same county, that they have treated one hundred and twenty-five cases without a single death, both saying that the disease

was very mild (but neither of them saying that it was characterized by a membrane).

The mortality of the cutaneous and other rarer forms of the disease was given incidentally in the first lecture as far as I am able to give it. In eleven cases of cutaneous diphtheria there quoted from Trousseau, there being no angina, three deaths occurred. The two cases of vulvar diphtheria were both fatal; one, however, was complicated with manifestation of the disease in the throat and in the skin. The case in which the membrane appeared at the anus was fatal, and also that in which the vagina was attacked. I can add nothing to this from my own observation. Since the disease commenced in New York I have not seen a single case of uncomplicated cutaneous diphtheria, and when it has occurred on the vulva and anus it has been in the course of other disease so grave as of itself to threaten life.

I may conclude this division of the subject by stating that the age of greatest comparative and absolute fatality is three to ten years; that it increases from the first to the third year, and diminishes after the tenth. It is not often fatal in adults, an instance now and then being all that we are compelled to record. Among physicians, it has counted a few victims, as among nurses, and fathers and mothers. Bretonneau claims that the Empress Josephine, and our own great Washington, died of tracheal diphtheria. This may have been true of the empress, but my lamented and distinguished preceptor and colleague, Dr. Beck, has left among his writings the best reasons for inferring that the death of Washington was caused by laryngitis. A little further on I shall read you a table which will give you the relations of mortality in diphtheria to the different ages somewhat more definitely.

I must now refer to the relations of this disease to the different ages of life. It is universally recognised as in a marked manner the disease of childhood. I have seen it in a few instances after puberty, say fourteen years, up to twenty. I have witnessed the death of a young lady, twenty-two years old, from the tracheal variety. I have seen it in a physician of about thirty-five years; in a lady of about the same age, all of whose four children had suffered from it; in a lady forty to forty-five, who had not been exposed to contagion, so far as she knew; in a father, fifty-six years of age, attacked at the same time with his children; and in a gentleman between sixty and seventy, in whose family it had not occurred before. These five all recovered. The disease did not extend to the trachea in any of them. Almost all physicians who have seen much of the disease, have occasionally met with it in adults. Trousseau has seen it in persons somewhat advanced in years, and has performed tracheotomy for it on a woman of forty. Bouchut says it has been seen at the age of seventy-two (Mem. on Diphth. p. 271). Greenhow says he has "seen a woman of sixty, and a man of nearly fifty, suffering from severe and fully developed diphtheria." He quotes Mr. Leonard for a case at sixty-five, and Mr. Clowes for one at seventy, and also fatal cases at fifty-eight, thirty-three, thirty-two, and twenty-two respectively. Mr. Louis reported in 1824 six cases of croup in adults, most of them occurring in the course of other diseases; and these cases are now regarded by the French authorities as diphtheria, since they say this affection was prevailing in Paris at the time they occurred. From such statements as these you infer that diphtheria in adults, though occasionally seen, is not very common.

Two hundred cases treated at the German Dispensary of this city, and reported by Dr. Jacobi, were all in children under fourteen years. A large proportion were from two to five years old; the average age being three years. Cases in infants under twelve months were rare, he says, and but few occurred in children over nine years old; still it appears that from thirty to thirty-five cases in persons over fourteen were treated in the institution during the time embraced in Dr. Jacobi's report. Dr. Kneeland (already quoted) reports the ages of twenty-two patients treated by him as follows, viz. seven months, one; from twelve months to ten years,

twelve; from ten to eighteen years, seven; from twenty-five to forty, three; showing a larger proportion after the eleventh year than is usually met with. M. Daviot (above quoted) gives a table of his four hundred and sixty-one cases showing the sex, age, and mortality of the sexes at different ages, that so nearly correspond with what others have observed that I cannot do better than repeat it for your instruction. He met the disease a little oftener in females than in males, 234 females and 227 males; but the mortality was a little greater among the males—males died 21, females 19 = 40. He did not see it before the ninth month. The other facts stand thus:

Age.	Males.	Females.	Mortality.	
			Males.	Females.
8 months to 5 years	75	73	5	2
5 years "10 "	59	53	13	10
10 " "15 "	46	40	2	4
15 " "20 "	21	25	1	2
20 " "30 "	12	20	—	1
30 " "40 "	11	17	—	—
40 " "50 "	3	5	—	—
50 " "60 "	—	1	—	—

You will notice that the mortality in its relation to age follows the law already laid down, except in this—that the deaths among adults fall somewhat short of the general average, while the number of cases above twenty years exceed the averages—sixty-nine cases and only one death. You will observe also that the disease is noticeably more frequent in males up to fifteen years, after which period it is more common in females, in consequence perhaps of their acting as nurses. The liability at different ages may be seen in another view of these figures, thus: Each year of life from one to five years of age counts nearly thirty-seven cases; each year from five to ten counts twenty-two cases; from ten to fifteen, seventeen; from fifteen to twenty, nine; from twenty to thirty, three; from thirty to forty, a little less than three; and from forty to fifty not quite one for each year. The difference in the frequency of a fatal termination at different ages will be made more striking by noting its proportion to the cases; before five years it is only about five per cent.; between five and ten it rises to nearly twenty per cent.; then falls between ten and fifteen to seven per cent. This markedly low mortality before the fifth year as compared with the next five years I hesitate to admit as a rule. My recollection of what I have seen of the disease does not confirm it. I have seen a heavy mortality between two and five years.

provoke hemorrhage, it did not return at that time. The wound was again filled with persulphate, a compress applied, and we left him with directions to make pressure with the finger should the hemorrhage recur, and send for us as speedily as possible. Early in the evening I was again summoned, and found arterial blood issuing freely from the wound—evidently from a large vessel—and the patient very pallid. With the hope of finding the bleeding vessel, I enlarged the wound by an incision backwards nearly to the tragus, and by another downwards to the distance of half an inch below the lobe of the ear. I could now ascertain that the source of the hemorrhage was deeply seated at the bottom of the wound. The original wound extended from a point half an inch in front of the meatus, downwards and backwards under the parotid gland, and the finger could be introduced into it to the depth of two inches. The end of the finger rested on the apex of the mastoid process, and in front of this the styloid process could be distinctly recognised. Very near the latter I could feel the pulsation of the vessel from which the hemorrhage came, as was proven by the fact that pressure upon it with the finger completely controlled the bleeding. The vessel could be traced forwards for a short distance by the finger in the wound, which fact, together with its great depth, led me to believe that it was the internal maxillary that had been opened near its origin. Pressure on the carotid artery controlled the hemorrhage. The vessel could not be reached at the point of injury without making extensive incisions that would involve the parotid gland, and the important nerves and vessels which it contains. I therefore thought it judicious to ligate the common carotid artery, and having procured the valuable assistance and counsel of Drs. Hamilton and Kissam, who concurred with us in the propriety of the operation, I made the usual incision, and tied the vessel at the point of election—above the omo-hyoid muscle. This completely controlled the hemorrhage. The patient did not take an anæsthetic. On the following day, twelve or fourteen hours after the operation, he had an epileptiform convulsion without any premonition, and without being followed by unpleasant symptoms. There is paralysis of the left orbicularis palpebrarum muscle, and consequently he is unable to close the eye of that side. This is owing to the division of some of the branches of the facial nerve by the incisions made to enlarge the wound. He improved steadily; the wound is nearly closed; the ligature came away on the twenty-second day. The patient was for a time rather intractable; on one occasion he tore the dressing off the wound, and but for the unwearied attention of Dr. Higginbotham by night and by day after the operation, I fear the result would not have been so satisfactory.

Original Communications.

LIGATURE OF THE PRIMITIVE CAROTID ARTERY

FOR WOUND OF THE INTERNAL MAXILLARY ARTERY—RECOVERY.

By J. C. HUTCHISON, M.D.,

PROF. OPERATIVE SURGERY AND SURGICAL ANATOMY, LONG ISLAND COLLEGE HOSPITAL, SURGEON TO THE BROOKLYN CITY HOSPITAL, ETC.

JOHN P. IRELAND, blacksmith, æt. 35 years, received in an affray on the 11th of September, 1860, several wounds about the face with an iron punch. The most important wound was situated half an inch in front of the external auditory meatus, at the left side, and presented a jagged appearance. He bled profusely from this at the time of the accident, and again three or four hours subsequently. There was a recurrence of the hemorrhage on the 24th of September at 2 P.M., when I saw him for the first time, at the request of his medical attendant, Dr. G. B. Higginbotham. When I reached the house the bleeding had been arrested by the application of Squibb's solution of *persulphate of iron*; and although the wound was thoroughly cleaned out, and its sides scraped with a director so as to

A CASE OF POISONING BY BELLADONNA.

By W. H. BUTLER, M.D.,

EAST SAGINAW, MICH.

THE following case occurred in the practice of Dr. J. B. White of Saginaw city. Oct. 31 the doctor was called to see J. P., æt. 35, who had presented the following symptoms: Just before the Dr. was called, the patient had aroused his sleeping companion by rapidly rolling over and over in the bed, throwing his arms about, etc. This person, thinking it a case of nightmare, shook him severely for the purpose of rousing him. This only created a disposition for resistance for a few minutes; and becoming alarmed, help was obtained, when the doctor was sent for, who learned the following history: The patient had purchased a bottle of fluid extract of taraxacum of a druggist, and on retiring about eleven o'clock, had taken several tastes from the bottle, altogether probably over a drachm. The doctor arrived at two o'clock, when he found the patient presenting the following symptoms: Pupil unusually dilated; eye nearly or quite insensible to light; conjunctiva congested; face slightly flushed, with some increase of heat;

extremities cool; no perspiration; stertorous breathing, with occasional yawnings; convulsive twitchings all over the body; mouth dry; difficulty of deglutition; some mutterings, but no articular words; voice husky; coma complete; pulse irregular, varying both in fulness and frequency from 75 to 130 per minute, but most of the time feeble. Doctor W. remained with him from 2 to 4 A.M. Treatment—cold to head, sinapisms to feet, and antispasmodics. When the doctor left, the coma and much of the spasmodic action had subsided. At 8 saw him again; delirium more active; pulse 80 and feeble; would occasionally spit a little thick white saliva; picked at bed-clothes; made efforts to get out of bed, and when up unable to stand, would stagger like a drunken man; had spells of laughing; wanted to whisper to the attendants, as if he had some confidential matter, but nothing coherent; occasionally placed his hand to his throat, as if there was oppression there; pupils less dilated; conjunctiva less congested. All the symptoms gradually improved by night, when he first seemed to be cognizant of faces and names. At 6 P.M. gave a cathartic (was unable to swallow much before). From this time recovery was gradual and marked. The second day he was in active delirium, precisely like delirium tremens. It was four or five days before the pupils of the eyes recovered their normal size.

Remarks.—The patient was a temperate man. On inquiry at the drug store, the proprietor stated that the bottle was filled from one that was nearly empty, which had been made from Tilden's solid extract of taraxacum, and that this was the last of a pint prepared some time ago, and they had heard of no bad effects before.

Another person took a little of the preparation on the tongue at the request of Mr. P. at the same time, and she was made sick, and states was unable to sleep during the night. Two persons applied the fluid to the eye on following days, and it immediately dilated their pupils: in one case only a drop was used. There seems to be no question, from the effects produced, that the above was a case of accidental poisoning by belladonna. In connexion with this case, I desire to refer to a paper read before the Royal Medical and Chirurgical Society, Nov. 24, 1854, and copied *Amer. Jour. Med. Sciences*, April, 1858, p. 501. In that paper Dr. Garrod asserts that animal charcoal, or common bone black, is a perfectly efficacious antidote for henbane, belladonna, or stramonium. In proof he cites his own case and that of one of his patients who had taken belladonna, as well as some experiments on the lower animals. It would be interesting to know if the experiments of Dr. G. have been confirmed by other observers, and if this simple substance is indeed, as he asserts, "the most powerful antidote" for these powerful drugs.

CASE OF CONFLUENT SMALL-POX IN A PREGNANT WOMAN.

By WILLIAM C. CORSON, M.D.,

PHYSICIAN TO NEW YORK AND EASTERN DISPENSARIES.

I WAS called, November 8, 1859, to see Mrs. S., aged twenty-two years, of good constitution and about five months advanced in her first pregnancy. She had been ill two days, as she thought from a severe cold. I found her laboring under the most violent febrile disturbance, with a burning skin, injected eyes, fierce headache, and a pulse of 160. A mixture of spiritus Mindereri and ipecac was ordered as a simple febrifuge, and in the evening of that day the variolous eruption made its appearance with considerable relief to her more urgent symptoms. On the day following, she was much more comfortable; pulse 100; heat of surface less pungent; and I prescribed sal rochelle as a cooling and laxative drink, with the usual directions as to ventilation and diet. Nov. 10.—There was some increase of fever, and the eruption is becoming confluent on the

face and arms. She was directed to have fifteen grs. of potassæ chloras every three hours. Nov. 11.—Her countenance is anxious, tongue dry and covered with a thick, brown fur; pulse 120 and weak; general signs of sinking. Chlorate of potash was continued, and wine whey was given freely. As she had scarcely slept for two nights, a large dose of hyoseyamus and camphor was prescribed at bed-time. Nov. 12.—Rallied from her threatening condition of yesterday. Slept four or five hours during the night; lost appetite returning. Continue chlorate of potash, the evening draught, and also the wine whey. During the next three days the exhaustion becoming more apparent, I explained to the friends of the patient the unpromising nature of such cases, and having expressed my fears as to the result of the present one, a consultation with Dr. John O. Stone was proposed for the following day, to which I cheerfully assented. Nov. 16, and eighth day of eruption.—Dr. Stone in consultation. The exacerbation of secondary fever coming on. Pulse 120; tongue thickly coated; eyes nearly closed from edema of lids. Dr. Stone kindly approved the plan of treatment and repeated the unfavorable prognosis I had already given. Treatment continued. On the day following her condition was somewhat better; appetite improving; pulse less frequent. Emollient applications were ordered to the face to soothe the itching. Nov. 18.—Still improving, and from this date she was rapidly convalescent. In answer to repeated inquiries each day as to any symptom of abortion, she always gave a decided negative. By the 28th of the month she was able to sit up and walk about the room; and one month from the beginning of her illness I was called to her, when she aborted without an unfavorable symptom. Additional interest was given to the case from the fact that the fœtus was marked with the variolous eruption.

CYANOSIS IN A PATIENT FIFTEEN YEARS OF AGE.

By HANFORD C. TODD, M.D.,

OF DOBBS FERRY, N. Y.

I WAS requested, on the 4th of January of the present year, to visit E—R—, an American girl, aged 15. I found her reclining upon a sofa and suffering with dyspnoea, pulse 120, slight cough, and a peculiar blue color of the lips, tongue, and extremities. The parents had observed this blue color of the lips and face, in a less marked degree, from her infancy; and also that their child was unwilling to engage in the active sports of children of her age. She would seem exhausted when she ran or over-exerted herself, and would be much fatigued when going up a flight of stairs. Mental emotions of fear, anger, or joy, were sure to increase the blue color of her face and lips, but in other respects she had not suffered more than other children with the diseases of childhood.

I examined the heart carefully; there was increased dullness on percussing the præcordia, with slight prominence. Auscultation showed the first and second sounds of the heart indistinct, but otherwise not unnatural; there was a heaving of the left side of the thorax, as if hypertrophy existed. I noticed that the left jugular vein pulsated markedly; the bowels were constipated and the appetite poor.

I diagnosticated malformation of the heart with hypertrophy, and stated to the parents that I believed it was in consequence of an opening between the auricles of the heart, and that the prognosis was unfavorable. The paroxysms of dyspnoea were at times so severe that I feared she would not survive them. I ordered the following: R. Tinct. digitalis, fl. ext. belladonnæ aa f 3 ii. M. Ten drops to be taken every four hours, and her bowels to be moved by mild purgative medicine. She seemed to improve under this treatment, but when she assumed the horizontal position would be attacked with the paroxysms of dyspnoea. I saw her one week previous to her death, which took

place on the 4th of February. I then advised them to have the opinion of another physician, as the girl was evidently failing. They, however, thought this was unnecessary, as my diagnosis had been confirmed by several physicians in New York who had previously seen the case. She now suffered with neuralgic pains, first in one limb then in another, and there was numbness of the right arm, with oedema of face.

On Feb. 14th she had a restless night. At 3 p.m. the following day, another attack of difficult breathing came on, and in three quarters of an hour she died.

I made a post-mortem examination 22 hours after death. The body was not much emaciated; the muscles of the thorax darker than usual; lungs healthy but congested; pericardium contained about two fluid ounces of straw-colored fluid; the heart was much enlarged and cavities dilated, I should think it would weigh 66 ounces; all of the blood-vessels were full of dark venous blood, and the cavities of the heart were full of semi-coagulated venous blood. The auricular septum was very thin and translucent, with an open foramen ovale; the opening was large enough to admit the index and middle fingers of my right hand without stretching the parts. The anterior portion of the auricular septum of the right side, and the posterior portion of the left side, were overlapped in such a manner as to partly occlude this large opening between the auricles like the folds of a curtain; there were two minute holes in this septum besides, which, however, in all probability did not add much to the difficulty. I was not allowed to retain this specimen, or make an examination of the abdomen.

Reports of Hospitals.

NEW YORK MEDICAL COLLEGE.

PROF. GARDNER'S OBSTETRICAL CLINIC.

February 13, 1861.

REMARKS UPON THE LIMITATIONS TO THE TOPICAL APPLICATION OF NITRATE OF SILVER IN UTERINE DISEASES.

CASE I.—You will remember this patient, gentlemen, for she has been here several times. Those of you who observed the appearance of the cervix uteri at her first coming, will recall its turgid, swollen condition, the gaping os with somewhat everted edges, showing the congested lining membrane of its canal somewhat eroded, and this denuded portion was continuous with a considerable patch of the same character, spreading over the anterior lip of the cervix. From the os exuded that peculiar viscid, limpid, tenacious, albuminous exhalation, the hypersecretion from the glandule nabothii which stud this canal—and which is one of the pathognomonic symptoms of a disease within the canal, which the eye cannot reach. I have so often described to you these symptoms of this disease, that I will not further dilate upon it. I have pressed the consideration of this disease and its symptoms upon your attention, because by obtaining a full understanding of it, you will be enabled to discover the key to and the way of curing many before unexplainable and intractable diseases.

You noticed at her last appearance that the erosions upon the cervix were cured. To-day you see that the flow from the os is diminished very markedly, and the congested lining of the canal is no longer pushed out into sight.

The treatment in this case has been the topical application of the nitrate of silver, by thrusting a piece an inch and a half in length into the canal. The relief which has been obtained is very marked and very rapid. Not more than three or four applications of the caustic have been made within a space of about two months. The question naturally arises, and would seem to be at first sight only to be

answered in the affirmative—Is this benefit attributable solely to this treatment? I am inclined to doubt it, except as the indirect result.

The patient tells me that she has not menstruated for about two months. Previously the catamenia were quite regular in their appearance, if anything a little sooner than was natural—and rather too profuse in quantity. Their sudden arrest when the disease was diminishing would strongly indicate pregnancy.

Cervical endometritis is one of the most frequent causes of sterility. It is quite impossible for a spermatozoon to pass through the cervical canal, the membrane of which is so swollen as to forcibly press against itself, and even be pushed outwards, so as to actually project into the vagina; so blocked up with this persistent, dense profluvia already noted. The effect of the treatment was to lessen this hyperæmic condition, to diminish the viscidities of this discharge, so that the canal might have been pervious to a vigorous spermatozoon, and pregnancy have occurred, the uterus and other organs above being healthy. Pregnancy does not unfrequently occur in the course of treatment, and the point which I shall present to your attention to-day, is the limitations to the application of the nitrate of silver, and especially in cases of pregnancy.

I said that I consider the rapid improvement of this patient due but indirectly to the topical treatment, but ascribable to the accident of pregnancy supervening, but which would not have ensued had not the first applications so ameliorated the local condition that it could take place. The subsequent very rapid improvement is owing to the fact that the current of blood is diverted from the local disease to the work of supporting the ovum attached to the uterus above, and the inflammatory condition is thereby modified till it is but a normal hyperæmia, just sufficient for the necessary nutrition.

In regard to the continuance of the application in this case, there is no reason why it should not be kept up so long as any trace of the disease remains. She probably has had the eauterization thoroughly done several times since she became pregnant. Its tolerance is as established as its benefits, and, as a general rule, the existence of pregnancy does not contra-indicate topical applications. They should, however, be used with more circumspection and *prévoyance*.

The late Professor of Practical Medicine in this College, Dr. Horace Green, to whom the profession owes so much in the diseases and treatment of kindred affections of similar tissues of the throat, has told us that it is necessary to make all applications *gradatim*, till the parts have acquired a tolerance of the instrument and the medicines. This statement is as applicable to the diseases of the female genital organs. The first applications should never be severe, especially in cases of cervical endometritis, and the more so if the patient be pregnant.

Pregnancy, as seen in the case before you, does not prevent the continuance of local treatment until the disease is entirely cured; and the existence of pregnancy may of itself call for this form of treatment in order to prevent abortion, or premature delivery, should the ease go on to that point. Pregnancy may take place where considerable disease is present, and sometimes the disease is aggravated by the general hyperæmia of the uterus consequent upon this condition; in certain cases we have what is called menstruation, erroneously, because the main element of menstruation—an ovum—is not present, and which is, therefore, merely a bleeding from the congested papillæ which line the neck, ruptured by the periodic aggravation which all local affections manifest at the return of the date on which the menses generally appeared. Sometimes we have such a profuse leucorrhœa going on during pregnancy as to call for positive interference, originating also from the same cervical endometritis as from erosions of the cervix. We may also have such aggravating and distressing *pruritus pudendi* as to be remarkable. This, as I have told you, is the result not of any disease peculiar to the parts in which

this annoying itching is felt, but is the result of the ichor, the abnormal secretion from the cavity of the neck, and which is entirely and immediately arrested by the application of the nitrate of silver, not to the irritated part, but to the seat of the complaint—the cavity of the cervix.

Again, we have cases of periodic abortion, that is the patient is frequently impregnated and as frequently aborts at a fixed time, say six weeks or two months. A *fissure of the cervix* is not unfrequently a cause of this oft repeated difficulty. If you will recognise, as do most of the accoucheurs of the present day, Mr. Stoltz's view of the development of the uterus, as I outline to you upon the blackboard, and as is fully portrayed in the *American Edition of Tyler Smith's Lectures on Obstetrics*, you must recognise that at a certain period the cervix is impinged upon, and the development of the uterus above draws upon and separates the sides of the hitherto quiescent fissure, which gradually becomes more and more irritated, and either transmits this irritation to the uterus, setting up an action in it which ultimates in the expulsion of the contents; or by the forcible separation of the sides, starts up a hemorrhage, which continues until the loss is so great that the fœtus is deprived of the blood for its nourishment, and dying, is thenceforward a foreign body, to be expelled from the uterus, or it may be that the irritation from the hemorrhage is enough to excite uterine contraction with the same unfortunate result.

Whenever, therefore, any of these conditions exist, the fact of pregnancy renders what without this condition would be unimportant, of the utmost consequence, and *local treatment imperative*.

Some may perhaps say that by this form of treatment you will destroy the mucous plug, which they imagine to be a sort of stopple to a bottle—the uterus—closing it, and that by it alone the fœtus is prevented from getting out. Gentlemen, this plug of mucus is a myth. Not that it never exists, for it unquestionably does in certain cases. Let us see what it is. It is not any product of conception, but simply and solely the albuminous mucus normally secreted from the neck, condensed and hardened by the heat of the part. There is no reason why it should not be apparent every month, except that increased in quantity and diluted by the flow from above, it is forced out and escapes among the profluvia as a leucorrhœal exhalation. In the cases where, as described, there is disease, the secretion is so great that it flows out as fast as formed. Thus the mucous plug of which you may hear so much said, is but an accident, a non-essential to gestation and a full development of the ovum. There is, therefore, no danger to be incurred by injury to this "plug." But in this, as in every other operation of this character, and especially upon the parturient, not only remember gentleness, but the absolute necessity of commencing with light applications gradually entering into the cavity of the cervix, and gradually increasing the strength of the caustic employed, from the weaker to the more concentrated.

LONG ISLAND COLLEGE HOSPITAL.

OVARIOTOMY, PERFORMED BY FRANK H. HAMILTON, M.D.,
ATTENDING SURGEON.

[Reported by P. C. PEASE, M.D., Resident Surgeon.]

ELIZA DILLON, æt. twenty-five years, an intelligent English woman, was admitted October 22, 1860. She was married, of fair complexion, and medium stature. Up to a period dating back some eight months prior to her admission, she had enjoyed uninterrupted health. Menstruation commenced between her thirteenth and fourteenth years, subsequent to which time, until her demise, she had invariably been regular. On the 22d of February preceding, she was seized with pains quite acute in character, located in the hypogastric region. Dr. Mitchell, the physician of the family in which she was then residing, was summoned to attend her, and the usual treatment for an attack of peritonitis was resorted to. After a confinement to the bed of two weeks

duration, she called for her clothes, and was surprised to find herself so much swollen as to be unable to wear them with comfort. During the sickness she had observed a fulness at the lower part of the abdomen, but had given it so little thought, as not to direct the attention of her attendants to it. Judging from her description, the size of the tumor at this date was about that of the gravid uterus at the third month of pregnancy. Upon close examination, the distension, not yet suspected as being caused by a tumor, was found to be greatest upon the right side, and the pain, a few days prior to the cessation, seemed to recede from the median line, and locate itself in the region of the right ovary. What makes the history of the case in its earlier stages peculiarly interesting, is the fact that the tumor had undoubtedly reached a very considerable size before manifesting its presence in any way calculated to attract the attention of the patient; for she states that at no period previous to the attack mentioned above, had she ever suffered pain in the region of the ovary itself, or disquietude elsewhere in the abdominal cavity. And moreover this period of suffering, evidently resulting from an attack of peritonitis, definitely marks the time whence the attachments existing upon the right side, found upon making the operation, took their date. The tumor gradually increased in size, causing but little inconvenience to the patient, and no more suffering, until about the first of June, when it apparently ceased growing, diminished quite rapidly in size, and according to her statement, almost disappeared; this again was followed by a second rapid development, reaching its present size about the last of August.

This statement of the patient and her friends is not confirmed by the family physician.

I shall give the further history of the case as it is found in my ward book. Oct. 23.—The patient measures forty-seven inches in circumference at the umbilicus. The cyst can be distinctly felt; in fact two of them exist, one, by far the larger, lying beneath and to the right of the median line, extending above the umbilicus a considerable distance; the other smaller, lying to the left, and apparently developed from its neighbor. Distinct fluctuation is felt, and the presence of an effusion into the peritoneal cavity seems to be indicated. She complains of shortness of breath at the slightest exertion, and a feeling of heaviness and discomfort, but no pain or soreness at any point. Appetite good; nutritious diet recommended. Oct. 25.—The patient was tapped yesterday by Dr. Hamilton. The trocar penetrated the large cyst; about ten quarts of dark gelatinous fluid were drawn off. This morning she has a high fever; pulse 120; says she felt well until 10 P.M., when she was seized with severe chills. The following was prescribed: R. G. acæ. ʒij.; aque ʒiij., sweeten and acidulate. To be taken ad libitum. Oct. 26.—Passed a comfortable night; feels somewhat better this morning; considerable pain in right and left iliac regions; diminution of febrile symptoms; has a diarrhœa. R. G. opi gr. ¼ every eight hours. Oct. 27.—The patient not so well this morning; diarrhœa still continues; has pain in head and back; tongue coated; urine much less in quantity than during the first forty-eight hours after tapping. From this date to November 12, the patient grew feeble daily; the diarrhœa continued with but little abatement, although active measures were adopted to check it. The discharges were of a bloody character a considerable portion of the time; the urine was tested several times and found to be highly albuminous. Tonics and stimulants were given, with highly nutritious food. Nov. 12.—The patient was tapped again by Dr. Hamilton, at her urgent request. An operation for the removal of the tumor was proposed, but would not be listened to by the patient or her friends. A still larger quantity of fluid was drawn off than on the former occasion, affording the patient much relief. For two or three days after the second tapping the patient seemed to rally, but again commenced declining, and at length expressed an anxious desire to have the operation performed.

Operation.—Dr. Hamilton operated this morning, Novem-

ber 17, in the presence of a number of medical gentlemen; assisted by the Hospital staff. Before commencing the operation he gave a brief history of the case, and stated that he expected to find strong adhesions upon the right side, which might prevent the removal of the entire tumor. Chloroform was administered. An incision was made commencing just below the umbilicus, and extending nearly to the symphysis pubis. The abdominal cavity being opened, a large multilocular cyst presented, partly distended with a thin puruloid fluid, and to the left of this, another, attached to it, fully distended, its contents similar to those of the first, but streaked with blood. Strong adhesions were found upon the right side, the larger cyst being quite firmly glued down to the lining membrane of the cavity, and requiring considerable force for its separation. The tumor, quite unexpectedly, was found to have its attachment to the left, instead of the right ovary. The precaution having been observed to transfix the pedicle below the ovary, and pass around it a double ligature, the craseur was employed, and the diseased structures removed. Quite copious hemorrhage followed before the ligature was tightened, which being done, the free end was left dependent at the lower angle of the wound. There was free hemorrhage from several points upon the membrane, from which the sac had been torn, thereby occasioning delay in closing the wound, but it soon ceased spontaneously. Uninterrupted sutures were used, and the dressings were completed at ten minutes to 12 m., the operation having commenced at fifteen minutes to 11 A.M. Nov. 20.—After the removal of the tumor on the 11th inst., the patient was placed in bed, and the recumbent posture very carefully maintained. Opium was freely given. She complained but little of pain, and the morning after the operation was feeling so well as to express her gratitude for being cured; her pulse stood at 105 per minute, and quite full. From this time she gradually sank, expiring at 9 A.M. to-day.

Autopsy, three hours after death.—Present, Professor Hamilton; Dr. James R. Wood, of New York; Drs. Henry, Chapman, Johnson, Dodge, Duval, Gilfillan, Lynch, myself, and others. No coagula found in the peritoneal cavity, but a considerable quantity of a very offensive, purulent fluid present; the intestines upon the right side quite firmly attached to that portion of the peritoneum from which the tumor was attached.

In an address before the Teachers' Association of Onondaga county, N. Y., Dr. J. KNEELAND thus alludes to the responsibility of teachers:—

"My apology for addressing you and your employers thus plainly must be the deep personal interest I feel in the cause of education, for MY JEWELS are to go through your hands. Shall they gain in beauty and lustre from your artistic touches and finishings? or shall they be fractured by rough handling or tarnished by impure contact? To you who are parents let me say: We have a deep personal stake in the character and fitness of those teachers who first instruct our children, after they leave their father's oversight and their fond mother's tender care, for 'character is mainly moulded by the cast of the minds that surround it.'

"See, then, that the teachers of thy little one be such as thy judgment shall approve."

"For the seeds of first instructions are dropped into the deepest furrows."

COMPENSATION TO MEDICAL AUTHORS.—It is stated that the Medical Book Publishers, Blanchard & Lea, have long been in the habit of reprinting foreign works from sheets furnished by the authors, or publishers, and to whom compensation has been duly made.

PALMER'S ARTIFICIAL LEG.—"We are glad," says the *Boston Medical Journal*, "to learn that the patent for this celebrated invention, a recommendation of which has been signed by the surgeons of the Mass. Gen. Hospital, has been recently renewed."

American Medical Times.

SATURDAY, APRIL 20, 1861.

MEDICAL DEPARTMENT OF THE ARMY.

THE crisis in our national affairs which is about to culminate in the active employment of the army, will lead to a more careful scrutiny of its several departments as regards their proper organization for efficiency. There is one branch of this service in which our profession is especially interested, viz. the medical department.

We believe it is generally admitted by our military authorities that the medical department of the army is under the most complete and thorough discipline. The officers comprising the medical staff are recognised as among the most intelligent of the army. This is due to the rigid system of examination which each candidate for a surgeoncy has to pass before he receives his appointment. The examination is not limited to medical qualifications simply, but embraces so wide a range of subjects as to test most effectually the general educational character of the applicant. This process has contributed to sift the medical candidates, and lead to the selection of only those who are the best qualified to give character and efficiency to this branch of the public service.

The devotion of our army surgeons to the severely trying duties which often devolve upon them, is always commended by superior officers. Stationed, as the large majority are, at distant frontier outposts, often beyond the bounds of civilization, and frequently in unhealthy districts, not only are the deprivations great, but the care of the sick imposes constant watchfulness and extreme fatigue. Many have thus lost health, and some life, by the physical hardships which they have had to endure. The army surgeon holds no sinecure, and if there is any branch of our military service which deserves the favorable consideration of government, it is that devoted to the preservation of the health of our troops.

It is gratifying to know that the pay of army surgeons, as established by a recent Act of Congress, is entirely satisfactory to the members of that Department, as is also the rank of surgeons. This is necessary to give that stability to the service so essential to its efficiency. There should be added, however, to the conditions of compensation, a retiring pension for those disabled in the service.

The army department has hitherto been remarkably free from all political influences, and hence its organization remains so permanent. This freedom from partisan interest in the questions which agitate and sway the masses of the people, is of vital consequence to its efficiency in times of popular excitement and disturbance. Any political considerations whatever, brought to bear upon army appointments or preferments, should be discountenanced both by the Government and by the people. It is the first step towards that demoralization of our army which might lead to a military usurpation. The medical department has been especially exempt from the encroachments of political place-seekers, doubtless because the positions are not very lucrative; though we may hope that the hard service of army

been pronounced inferior in richness to the first, a conclusion the reverse of what is shown to be the fact; as the first eight samples amounted to $61\frac{1}{2}$ per cent of cream, while that of the last amounted to $141\frac{1}{2}$, that is to say, more than double the percentage of cream. This fact shows how little can be known by the lactometer. A similar test was made of ten samples of morning and evening milk, with the percentage of cream and curd. The average specific gravity of the morning milk was 1029; total of cream, $77\frac{1}{2}$; of curd, 693. Of the evening milk, average specific gravity, 1027; total cream, $96\frac{1}{2}$; curd, 810. It appears from the above that the ordinary specific gravity of milk varies from 1031 to 1008. Mr. FLINT, in his book on "Dairy Farming," says: "No reliable (trustworthy) conclusion, as to whether a particular specimen of milk has been adulterated or not, can be drawn from the difference in specific gravity alone. But knowing the specific gravity, at the outset, (just what the milk inspector does not know), of any specimen of milk, the hydrometer (lactometer) would show the amount of water added. This cheap and simple instrument is of frequent service." Not, however, for detecting adulteration in any case where the specific gravity is unknown when milked. It is hoped, therefore, that Boston will not much longer tolerate this miserable lactometrical interference with the milk business. If it be necessary to have a milk inspector, appoint a chemist that understands organic chemistry, and how to apply it.

In the published transactions of the Statistical Congress, London, Dr. JARVIS, of Massachusetts, said, "Illegitimacy is a very rare thing with us." This assertion is wide of the truth; at least, in our cities. The Lying-in-Institutions of New York city have constant applications from unmarried women. Dr. Sanger, in his investigations of the condition of the prostitutes of this city, says: "The whole of the children borne by single women are, of course, illegitimate. Of the children of married women, over forty per cent.; and of the children of widows, forty-four per cent., are illegitimate. Taking the total number of children of the three classes, and calculating upon this broad basis, it will appear that 1090 illegitimate children were born, getting an average of fifty-seven per cent; or, to speak in plain terms, of every hundred children borne by women who are now prostitutes, forty-three were born before the mothers (married women or widows) embraced this course of life."

In some remarks before the Statistical Congress, at London, Mr. CHADWICK alluded to the opinion of Mr. Robertson, of Manchester, in regard to the cause of the increasing inability of females to suckle their own children. He (Dr. R.) attributes this defect to prolonged sedentary habits, in which they were brought up as girls in boarding-schools, and recommends gymnastic exercises as practised in Sweden and Paris. Mr. R. believes that the deaths in child-birth among the females in high life, are seven or eight times the number among females of the laboring classes.

THE LUNACY COMMISSION Bill, that has been pending in the New York Legislature, has been defeated in the Assembly, not by negative votes, but by the arbitrary decision of the Chairman of the Judiciary Committee, Mr. Bingham, who has declared that he will not report the bill which came down from the Senate. Imperfect as that bill was, it provided for the successful institution of a much-needed service; but the honorable member from Rensselaer county has, in disregard to the almost unanimous voice of the Senate, opposed his individual opinion and the lock of his Committee's drawer. May none of that gentleman's family ever need the services of a Lunacy Commission.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, FEB. 27, 1861.

A. C. POST, M.D., President, in the Chair.

ULCERATIONS OF THE APPENDIX VERMIFORMIS—PERITONITIS.

DR. A. CLARK exhibited the appendix vermiformis, a portion of the caput coli with the lower part of the ileum attached, removed from a young lady who died last Sunday. I understood, said Dr. Clark, that the attack commenced on the Wednesday previous, that it was painful from the beginning, that the pain was experienced almost wholly in the lower portion of the abdomen just above the pubic bones; and that there was no tympanitis until about the time I saw her, which was about noon on Saturday. She had had uncontrollable vomiting almost from the first of a green matter, pretty rapid pulse, and pretty severe pain, at one time it was thought, relieved by pressure, but still continuing. When I saw her on Saturday the bowels were moderately swollen and exceedingly tender, the patient permitting no pressure at all, lying with her knees drawn up; and though extending her legs, she did it slowly and reluctantly. The features were considerably pinched; she was very restless, tossing a great deal in bed. As often as anything was taken on the stomach, it would be almost immediately thrown up. The pulse was 150. At the *post-mortem* examination the appendix vermiformis was found perforated at a point near its extremity, and at another point about half an inch above. Between these two points was a spot of gangrene. At the central opening there was presented a mass of pretty hard fecal matter which, however, could be broken down with the fingers. The immediate vicinity was marked by a considerable amount of adhesive inflammation, and from a pint to a quart of muddy pus was found in the pelvic cavity. General peritonitis was marked all the way round the abdomen.

FRACTURE OF THE ACETABULUM—IMPACTION OF HEAD OF FEMUR, ETC.—RESECTION.

DR. GEO. A. PETERS presented a specimen of *Resection of the Femur* with the following history:—

Caspar Horning, æt. 30, German, laborer, was admitted into New York Hospital—service of Dr. Watson—Aug. 10, 1860. About four weeks previous to admission patient was struck over the left hip by a large fragment of rock, thrown from a blast with such force as to knock him down. Immediately after the injury he was examined by a physician at Hoboken, where the accident occurred, who assured him that he had sustained no fracture nor serious injury. Patient states that he was unable to move the limb to any degree after the accident. On admission, a small opening which would admit a goose-quill existed a short distance behind the left anterior superior spinous process, and pressure from below caused a stream of pus to be ejected. A probe introduced passed directly downwards a distance of four inches. The thigh was flexed upon the trunk, strongly abducted and rotated outwards, making a right angle with the plane of the body.

Owing to the feeble condition of the patient no attempt was made to improve the position of the limb, but various means were employed to cause the abscess to heal, and to restore his general health. Early in September two openings declared themselves by the side of the scrotum about two and half inches anterior to the anus, from which a considerable amount of pus escaped.

On January 14th, I then having charge of the case, the following note was made:—"Patient does not improve. The anterior opening has healed and another has taken place in

its immediate neighborhood, about an inch below the anterior superior spinous process. The sinuses near the arms still remain open, and discharge daily about four ounces of pus. Patient is much emaciated and has a bed-sore over the sacrum—eye bright, appetite good, spirits hopeful. Is very anxious that something should be done to improve position of limb." The following day he was etherized for examination. The anterior opening was enlarged, and on introducing the finger bare bone was detected with an apparent fracture involving the acetabulum, the hip-joint immovable, and the deformity simulating closely dislocation of the head of femur into the foramen thyroideum. January 15th a consultation of the surgeons of the Hospital was held, and it was decided to cut down upon the bone, and examine its condition, prepared if necessary to exsect the head of femur; this was done on the day following. Patient was etherized and removed to operating theatre. The former incision was enlarged by Dr. Peters in a direction downwards about four inches, and the bone denuded and exposed as much as possible through this opening. The head of the bone was found firmly ankylosed in its position. A second incision was then made over the trochanter, the baring of the bone completed. The chain saw was passed around just below the base of the lesser trochanter and the bone divided; a second section was then made through its neck, and the portion including the two trochanters removed. The limb was then readily brought down into the straight position, and elastic extension applied with five pounds weight running through a pulley secured to the foot of the bed. For a few days after the operation, patient improved, until the 23d, when he had a chill, followed by a slight attack of erysipelas of the face; this, however, quickly subsided, but he continued to fail and died on the 27th inst., nine days after the operation.

An autopsy was forbidden, but we succeeded in obtaining the left ilium, which is preserved in the Hospital museum. An abscess was extending from seat of injury into the internal iliac fossa. There was also found to have been fracture of the acetabulum with impaction of the head of the femur, which is firmly ankylosed in its new position, and by ulcerated action has perforated into the pelvic cavity. By the impaction of the head, the inner lip of acetabulum has been fractured and driven forwards on the ramus. There has, also, been a fracture of the horizontal ramus at its junction with the acetabulum. The ramus of the ischium has also been the seat of fracture, which is surrounded by an irregular bony deposit. There is also a bony deposit on the external surface of the ilium just above the acetabulum, and also at several points on external surface of crest of ilium.

POPLITEAL ANEURISM OCCURRING IN THE COURSE OF A LIGATED VESSEL.

DR. PETERS presented also a specimen of popliteal aneurism occurring in the course of a ligated vessel. The history of the case, as taken from the Hospital Record, was as follows:—John Conn, æt. 41, Ireland, carman, was admitted into the Surgical Department of the New York Hospital, Jan. 7, 1861. Service of Dr. GEORGE A. PETERS. Patient is a man of irregular habits, syphilitic cachexia, and a systolic aortic murmur. Was admitted into Medical Division of the Hospital, Nov. 20, 1860, with a mild form of typhoid fever. By the 12th of December, convalescence was so far established that patient was able to get out of bed.

A few days after doing this, he complained of a swelling of the right lower extremity, which was thought to be due to the effects of the ligation of the external iliac artery, for inguinal aneurism, which operation was performed about three years ago by Dr. Hosack, the tumor in the groin being at that time about the size of a goose egg. The ligature came away on the 23d day; pulsation in the tumor ceased at the time, but returned in three months.

On inspecting the groin the cicatrix of the incision was a little above the line of Poupart's ligament, and the seat of a hernial protrusion consequent on the operation. About

an inch and a half below Poupart's ligament, is felt a hemispherical, circumscribed, pulsating tumor, in circumference about the size of an old cent, its contents fluid, as recognised by being easily emptied on pressure. Below this point the femoral artery cannot be recognised. Dec. 17, 1860.—The limb has been bandaged from the toes to the groin for the last few days, with the effect of diminishing the œdema; in consequence of which there can be felt in the popliteal region an ill-defined mass, tender on pressure and obscurely pulsating, the pulsation not being at this time of an expansive character. From this time the tumor rapidly increased in size, retaining but for a few days its pulsating character. Patient was seen by several of the surgeons, who considered the diagnosis doubtful, and thought the tumor phlegmonous in character. Jan. 7, 1861.—The pain, which has been quite severe, requiring anodynes to produce rest, has within the last forty-eight hours subsided, but the œdema of foot and leg is very great. The integument above the lateral portion of the knee-joint is of a purplish brown color, and this morning a fluctuation is distinctly recognised below the inner tuberosity of the tibia. The knee-joint is also now evidently involved. The synovial pouches about the patella being distended, and crowding the articular surfaces together, cause much pain. A grooved exploring needle was cautiously introduced to a limited depth, and several drops of pus, moderately stained with old blood, were evacuated, whereupon the incision was enlarged to about half an inch, allowing the escape of two ounces of similarly characterized matter. The probe introduced through this wound, passed its full length upwards, also downwards, and directly across the upper portion of the calf, posterior to the bone.

A consultation was held on the case by Drs. Peters and Parker, and in view of the tension of the parts, and the probabilities of the periosteum being involved, an incision, commencing a little below the tuberosity of the tibia, six inches in length, was made down to the bone, revealing no lesion of the bone, but imperfectly opening, at about its middle, into the cavity of the abscess, which was found to contain masses of broken down coagulum. On crowding the fingers up to the popliteal space, there is felt an irregular, nodulated, pulsating tumor, apparently the size of a hen's egg. Its walls appear to be intact, and feel as if formed of recently deposited fibrin. From the above symptoms and exploration it was concluded to be a false aneurism of probably recent formation, which either by its presence, or rupture, had excited inflammation and suppuration. Patient's general condition has suffered but little from the recent developments. Jan. 4, 1861.—Yesterday afternoon, patient was transferred to the surgical ward, wound stuffed with lint, and a careful watch kept upon him. This afternoon at 1½ o'clock, a consultation was held, Drs. Buck, Halsted, and Markoe present. It was deemed advisable to enlarge the opening first made for the purpose of exploration, there having been no hemorrhage. On examination no aneurism was at first detected, and it was then thought to be merely a large abscess, with a large broken-down blood clot in it. An incision was made through the ham in the most dependent portion. On further exploration through this opening the aneurism was discovered, irregular in its outline. During the digital examination of the tumor, a portion of coagulum became disturbed, and a very copious arterial hemorrhage confirmed the diagnosis of the previous rupture of the aneurism and consequent suppurative inflammation about it. The hemorrhage was partially restrained by crowding the cavity of the abscess with a sponge and compressing the tumor in the groin, and incompletely by the application of the tourniquet. Patient was then etherized, and amputation of the thigh performed by the circular method, a little below its middle. The surface of the stump was very vascular, and ten ligatures were required. The integument was then brought together by sutures and adhesive straps, and cold water dressing ordered.

On examination of the leg the aneurism was found to be a false one, and the femoral artery supplying it was of nor-

mal size. The specimen was placed in the museum of the Hospital. For a week following the operation, the patient did pretty well, but at the end of that time began to lose ground, and on Jan. 26th was seized with a chill. He then sank rapidly, and died in the course of the two subsequent days.

Post-mortem appearances.—The external iliac artery was found obliterated from the point of the ligature back to the origin of the internal iliac. Below the seat of ligature, the artery was of normal size, being supplied with blood through the epigastric and circumflex iliac, which were found to be considerably enlarged. The aneurism was found to be about the size of a hen's egg. The femoral artery was of normal size, though much diseased by atheromatous deposits.

AN INTERESTING CATALOGUE OF DISEASES.

Dr. Loomis presented a kidney taken from a patient forty years old, who had been an inmate of Bellevue Hospital since the middle of January last. The prominent symptom was extreme dyspnoea, which depended upon emphysema of the lungs and hypertrophy of the heart. The extremities were oedematous and the urine was albuminous. She gradually grew more and more feeble until the 20th of February, when she died. The autopsy revealed the right lung adherent to the chest. The left pleural cavity was filled with serous fluid in which there was no lymph. Both lungs were oedematous. The heart was hypertrophied, particularly upon the right side, and weighed twenty ounces. The auriculo-ventricular valves were thickened. The right kidney was fatty, and weighed eight ounces. On attempting to remove the left kidney it was found to be bound down by adhesions. On removing the mass it was found to be covered entirely by a fibrinous exudation at least an inch thick. On dissecting this off carefully upon the anterior and inferior portion of the organ was found a cyst containing about two ounces of thick whitish fluid, which was found on microscopical examination to be made up of free oil globules, degenerated casts, and broken down renal structure. On laying open the kidney in the usual manner, it was found entirely disorganized, presenting the appearance of a sac filled with calculi of various sizes. During her stay in the hospital she gave no symptoms that could lead to the suspicion that any such trouble in the kidney existed.

Correspondence.

TREATMENT OF REFLEX PARAPLEGIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—In answer to the criticism of Dr. Peters, on the use of belladonna and ergot in the two cases of *Urinary Paraplegia*, reported by me in the MEDICAL TIMES of March 30, allow me to say, that no discrepancy whatever exists between my treatment and that advised by my friend and teacher, Dr. Brown-Séguard. You will read in his valuable *Lectures on the Diagnosis and Treatment of the Principal Forms of Paralysis of the Lower Limbs*, p. 48, the following: "No narcotic is more powerful than belladonna locally employed to diminish pain or to prevent a reflex action. In cases of diseases of the urethra or the prostate, an injection of a solution of one grain of the extract of belladonna, in twenty drops of laudanum, is to be made into the urethra, and the injection should be retained half an hour or even an hour, after which some emollient decoction should be employed to wash away the rest of the narcotics. In cases of a disease of the bladder, I recommend the use of an injection into the bladder of a solution of one grain of the extract of belladonna, in twenty drops of laudanum, just after a complete emission of urine. . . ."

No doubt belladonna diminishes the amount of blood in the spinal cord, but in urinary paraplegia that remedy, when administered internally with ergot of rye, has a direct action upon the urinary disease, as has been observed by Dr. Brown-Séguard, in numerous cases which I have myself attended, in the National Hospital for the paralysed and the epileptics, of London. Under such circumstances belladonna, in my opinion, seems to have a specific action upon the urinary organs, likewise produced in other diseases of the genito-urinary apparatus not attended with paralysis. Therefore, it is not against the paralysis, but to prevent the peripheral irritation causing it, that belladonna and ergot are prescribed in urinary paraplegia. I cannot better maintain my opinion on this subject than by repeating here what I have advanced in one of my last lectures on *Reflex Paralysis*, delivered at the University Medical College:—"In reflex paralysis, whenever there is no peripheral inflammation, belladonna from the commencement proves unfavorable."

It will be plainly perceived, from what I have said, that my opinion is in entire accordance with the teachings of my eminent and learned friend. Yours, &c.

M. GONZALEZ ECHEVERRIA, M.D.

NEW YORK, APRIL 13, 1861.

CONTAGIOUSNESS OF YELLOW FEVER.—SIR WILLIAM PYM.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—A letter from my friend JOHN WIBLIN, M.D., Quarantine Officer at Southampton, England, contains the following lines, which, though entirely private, are of so much general interest, that I cannot forbear the trespass of offering them for publication, with a remark or two upon them.

"73 MARLAND PLACE, SOUTHAMPTON, March 11, 1861.

"MY DEAR DR. GRISCOM:—Very many thanks to you for your kind remembrance of me in sending me a copy of 'The Proceedings of the Quarantine and Sanitary Convention of 1860,' which I have read with deep interest and considerable profit. It reflects high honor on you 'go-ahead' physicians. We are certainly behind you in many matters; and in the elucidation of the vexed question of the contagious or non-contagious character of yellow fever, I am bound to admit that you bring to bear upon the subject matured and truthful and unprejudiced minds, and that the hard, plain testimony of *facts* goes to prove more than all the oratory, sophistry, and want of truth so frequently had recourse to when men are biassed, and wish to establish as facts their own prejudiced and badly interpreted character of a disease. You believe that yellow fever is not infectious—I speak generally. I differ with you, and so does my friend Sir William Pym, the Superintendent-General of Quarantine in this country. He is now ninety years old, and his mind is as vigorous, and his intellect as clear, as any ordinary man at forty."

Remarks.—1st. The above allusion to Sir William Pym, whose vigorous senility presented so much mature intellect and energy, it will be seen, was written on the 11th ult., and your last week's issue contains a notice of his death as having occurred on the 15th, only four days afterwards. You there stated his age to be eighty-five, while Dr. Wiblin puts it at ninety-one.

2d. The generous view which Dr. W. takes of the animus of our writers on yellow fever is worthy of special notice and imitation, especially as his own sentiments appear to differ from those of which he speaks.

J. H. G.

MIAMI VALLEY MEDICAL ASSOCIATION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR—I was much surprised to see in the MEDICAL TIMES of the 6th inst., a notice of the "Miami Valley Medical Association." Surprised, because we know nothing

of it here! Dayton is the third city in population in Ohio; is in the very centre of the Great Miami Valley, which it is said this Association "embraces," and yet, I know nothing of such a society, having never heard of it! The only medical organization here, is the "Montgomery County Medical Society." I am at present the President of this Society, and have been connected with it for seven years; and ought to know of other regular organizations hereabouts. I know of no other than County societies. I fear this is the work of quacks, and therefore wish you to give us the names of the men at the head of it, and the town in which it is located.

Yours, &c.

J. C. REEVE, M.D.

Prof. Mat. Med. & Theo. }
Med. Col. of Ohio. }

DATTON, OHIO, April 8, 1861.

[The "Miami Valley Medical Association" purports to be located at Hamilton, O. Its Board of Trustees is given as follows:—S. H. POTTER, President; D. E. TAYLOR, Secretary; C. MARKT, Librarian; A. SHEPHERD; MOSES SMITH; R. J. GARRETTE; J. F. WUIST.—Ed. *Med. Times*.]

EXTENSION IN FRACTURES.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I notice in your paper of Feb. 6, 1861, a criticism upon the article presented by me to the State Medical Society, Feb. 5th, and entitled "A Ready Method for the Treatment of Fractures of all the Long Bones by Simple Extension."

Now, sir, I would say first, that the author of the *Domes-tic Correspondence* could not have paid much attention to the reading of the paper, or he would not have fallen into the errors he did, some of which, I am inclined to think, are the fault more of the head than the heart. When he says, "Upon the question having being raised as to what degree of extension or force may be borne without completely separating the fractured ends of the bones, Dr. Bly, of Rochester, related the results of his experiments on the leg of a dead sheep, and produced extension of the muscles to about one half inch." Dr. B. should have fairly stated the difference between simple extension, on the one hand, and on the other of suspending weights until the integrity of muscles was destroyed, also the difference of *dead* and *living* tissue. I expressly say that the extension obtained by a strong man upon a broken thigh will not elongate it beyond its normal condition, and also expressly deprecate the pulleys and uprights, as they paralyse and elongate the muscles, and thereby destroy their usefulness as splints. The next quotation to which I will refer is this: "The elder and more experienced surgeons very kindly received and criticised the peculiar hobby of the paper." As to the older surgeons (notwithstanding they had seen this practice in the Albany Hospital continually, and had never seen a bad result), they never attempted to say one word, *pro* or *con*., but were noticed by many in attendance to urge the more experienced to take the cudgel with which to pummel the young surgeon.

The next quotation is, "Its author found it very difficult to defend his *exclusive* practice by simple extension." If good results in the treatment of a hundred fractures of the long bones, and also Dr. Thorn's experience, as reported from the Marshall Infirmary, is not a good *practical* defence, then I have found it difficult to defend the *exclusive practice* of my hobby.

His next quotation is untrue, viz. that I "resort to lateral support to the fractured limbs in particular cases." I expressly said that where a lateral splint is used, it is only a means by which the extension is made and perpetuated, and not for lateral support. In the thigh there is no lateral support used; in the leg he only uses the apparatus as a means of extension; and in the article on extension I said that the treatment adapted to the femur is applicable to

any portion of the thigh or leg. Indeed, the *more experienced surgeons* saw one case of compound fracture of the tibia treated by this method of simple extension and no lateral splints, and though fractured only fourteen days previous, it was as perfect as the other limb, and quite firmly united. This same treatment is equally applicable to fractures of the arm or forearm, but from the fact that it seems unnecessary to confine our patient to the horizontal position in order to effect this end, I resort to means of extension by which the patient is enabled to prosecute his usual labors. With reference to the remarks of Dr. James R. Wood, he says it "constituted the most interesting event of the first day's session; close attention was given to his remarks, which seemed to satisfy the obvious desire of all classes of practitioners, who fear the misapplication of judicial inquiry and prosecution for the correction of faults in surgery." No one could be more pleased than I with the frank, honorable, gentlemanly, and masterly manner in which Dr. Wood discussed the merits and demerits of simple extension; though I defended what I *knew* was the true principle of the treatment of fractures, I was, nevertheless, anxious to hear the views of James R. Wood. That I had great confidence in my mode of treatment is proved, when I proposed (in the discussion which occurred between Dr. Wood and myself) to treat alternate fractures in any hospital (by his method) with any surgeon, and would stake my reputation upon the *results*, by obtaining union, in less time and with better results, than could be obtained by the use of splints as commonly applied. As to the last clause, it surely does not apply in the present instance, as I have never been sued for mal-practice, nor has there been any occasion even for the insinuation.

In your issue of March 6, 1861, appears another stricture upon the same paper, under the significant *nom de plume* of "Splint," whose almost entire correspondence is an evident perversion of the facts and statements contained in the article on Simple Extension in the Treatment of Fractures of the Long Bones. This will readily be seen by reference to the quotations. The first of these reads thus: "In speaking of fracture of the thigh, he says, 'If, after full extension is effected, it should appear that the limb is not sufficiently steady at the seat of fracture, the application of strips of adhesive plaster around the limb and splint, at intervals of three or four inches, will accomplish all the indications.'" This is not what I have said at all in reference to the *femur*. "Splint" has it applied to the *thigh* instead of the *leg*. I have it thus:—"In fracture of the femur I use simply *extension* and *counter-extension* without splints, and in the leg I sometimes do the same; the bed is the *splint*, the foot of the bedstead the *point of extension*, and the head-piece (of the bed) the *counter-extending point*." I trust that no intelligent reader can mistake or misinterpret this, and would refer him to an article published in the *Phila. Med. and Surg. Reporter*, Feb. 16, 1861, in which this subject of fracture of the femur is fully treated, together with twenty-five cases illustrative of this mode. In reference to the portion which refers to fractures of the forearm, called Colles and Barton's fracture, I shall only refer the reader to the number of the *Med. and Surg. Reporter* for March 9, where I give facts and figures in support of my views of the treatment of this form of fracture, and my reasons for the lateral supporter, more appropriately, posterior deflection. I experience no "uneasiness as to the *disposition* of the bone," but only suggest it for others who may be *incredulous* and *fearful* of results.

As to the idea that—"he seeks to establish the absurd principle that muscles cannot be extended beyond their natural length," I maintain that any attempt to extend a muscle beyond its normal capacity not only provokes resistance, but a tearing of its substance (I mean the *living* and not *dead tissue*). Take, for instance, a fractured thigh; extension on the extremity by a strong man (and not with weights and pulleys) will stretch the muscles to their normal length only; which fact can be shown by the most careful measurement, thus proving that the danger of too

much extension is only imaginary. The cases referred to by Drs. Batchelder and Bissell were not treated by simple extension; these were treated by bandaging or splints of some kind, or if treated by extension, it was that form where a pulley and weight were used, by which the muscles are virtually paralysed or permanently elongated beyond their normal condition. This condition *cannot* be produced by simple extension. I stated in the debate "That it was only requisite to draw the limb to its normal length, when the natural position would be restored, and all source of irritation would be removed. The amount of extension must be in all cases regulated by the feeling of the patient and admeasurement of the two limbs."

In reference to the treatment of fractures of the humerus and forearm, I again say that the splint is not *necessary*, "but owing to the fact that the patient cannot be confined to the *bed*, the extension and counter-extension are made through the medium of a splint"—virtually maintaining that the splint shared no part in coaptation and lateral support, except that it furnished the two points, i. e. extension and counter-extension. But "Splint" says that I am a *bold* surgeon to advocate a plan of treatment which is so universally acknowledged to result in non-union, viz. keeping the ends of the bone apart from each other. Do I advocate this plan? These are my ideas upon the subject.—"While nature requires rest for bony union, she requires also PERFECT APPPOSITION for union without deformity," neither more nor less than perfect apposition. "Splint," to avoid one evil, falls into another; for, fearing that the bones of the arm will separate by hanging, he adopts the novel plan of crowding the ends of the bones together. This is certainly a new idea, and one which cannot be borne out by practice. With reference to non-union I remark, "In fracture of the tibia, I have seen no patients suffering from non-union where extension was applied; but I have had three that failed to unite (where splint, bandages, and compresses were used) for three or five months. Of the humerus, radius, and ulna, I have seen no cases of non-union. I have now treated over forty fractures of the femur by simple extension, and absolutely no splints, bandages, or lateral supports." Dr. Thorn, Surgeon to the Marshall Infirmary, Troy, has treated fifteen of fracture of the femur by the same method—in all of which the results were better than could be obtained by the use of splints. These femurs united strong in three to six weeks, and in many of them considerably firm union in fifteen or twenty days, and none of them resulted in non-union. The only case of non-union occurring was where the surgeon used the bed as a *splint*, and besides a *Liston* splint and lateral support. "Thus while trying to serve two masters, he failed in effecting a union of the limb."

"Splint" says, "I cannot understand the force of reasoning adopted by Dr. Swinburne to prove that the muscles act in a straight line." Let us see what are the muscles of the thigh which can possibly act as distorters of the broken femur. In the horizontal position nearly all the muscles are *absolutely at rest*. In lying on the back with legs extended, I have been unable to find any of the muscles inconvenienced thereby. In this position in the cadaver I find the *psaos magnus* and *iliacus internus* easy and not stretched; the *glutei* are relaxed; the adductors, sartorius, quadriceps extensors are not stretched; the only remaining ones, though they are not tense, act on the longitudinal axis of the bone, because they run parallel with the femur and are attached to the tibia and fibula, so that the distortion would be in the longitudinal axis, and hence extension is required; and I have yet to learn that the profession ignore extension in the treatment of the fractures of the thigh.

One more quotation and I have done. "Splint" says, "I am not aware that Dr. S. claims any originality in the matter (i. e. simple extension). He has, however, allowed his enthusiasm to lead him into error in regard to the adaptation of his principle to practice, which (being *assumed*) is convincing to my mind that the *principle* is erroneous—his

honest efforts to prove the opposite state of things only show how skilfully he can ride his hobby."

With reference to the first portion of the quotation—the principle of extension is acknowledged by all good surgeons. While with reference to his "*enthusiasm leading him into error*," I think it a good *error* when the results are so perfect that it baffles a good surgeon to discover which of two thighs had been broken, though the fracture was compound and comminuted, occurring in a man weighing one hundred and eighty-five pounds. What is true of this case is also true of *all* the others, and equally so of fractured tibia.

As to the "*adaptation of his principle to practice*," instead of showing that the principle was wrong, *practice* only serves to make the *principle* more fully appreciated, and demonstrates to the world that it is not the *kind* of *splint*, but the *mode* and *manner* of the *application* of the *principles* involved. It is to be hoped that "*Splint*" (now happily dispensed with) will deal a little more candidly with this subject in the future, and not pervert *expressed views*, and will state distinctly when he is treating *dead* or *living* tissues, also whether the extension is effected *with* or *without weights and pulleys*.

JOHN SWINBURNE, M.D.

ALBANY, N. Y., April 3, 1861.

CASTOR OIL LEAVES AS A GALACTAGOGUE.

SOME time since an article with the above title, extracted from a London periodical, attracted the writer's attention, and led him to wish that the statements therein made might be corroborated, if possible, in this country for the sake of introducing a very simple remedy for a very prevalent complaint. The weight of evidence in the article alluded to seemed strongly favorable to the truth of the assumed fact, viz.—that the leaves of the *Ricinus Communis* or Castor Oil plant, possess the property, when applied as a poultice, or taken in the form of an extract, of stimulating in a peculiar manner the lacteal glands and producing a flow of milk in women otherwise incapable of becoming nurses. The following is a portion of the statement from the British Medical Journal:—

"Dr. Routh exhibited three preparations of castor oil leaves, a tincture and a liquor (dose of each, one dram), and an extract (dose, five grains). The leaves were obtained from Australia. Dr. Routh had read a paper on the subject of the galactagogue effects of this plant, the leaves of which, applied to the breasts as poultices, and as fomentations to the vulva, for three days at intervals, were used in Boa Vista, to induce milk in the breasts of any woman within catamenial ages, but particularly, if these women had borne children, to produce milk. The milk, once produced, could be perpetuated by the simple irritation produced at the nipple by the suction of a child. These facts, related by Dr. McWilliams, had been confirmed in part by Dr. Tyler Smith. Dr. Routh had published his experience on the subject in a series of papers in the *Medical Times and Gazette* of this year. To lying-in women with a deficiency of milk, he had given the infusion, in combination with conger-eel soup; and the effect in determining a copious flow of milk has been remarkable. He had administered the extract to unmarried women within catamenial ages, and the effect had been to produce intense pain in the breasts; but, as he could not find anybody, in that case, who would try the effect of a child, he had not yet induced milk in the breasts of such; but, after three or four days, the symptoms were relieved by a copious leucorrhœa. As it was possible that a larger experience of this remedy might enable us to convert some married women (within catamenial ages) into wet-nurses, and as it undoubtedly acted as a powerful lactagogue in suckling women, he was anxious that others also should experiment."

As corroborative of the above, there is a remark by Professor Wood, in the United States Dispensatory, in the article on Castor Oil, as follows: "A decoction of the leaves is said to be employed effectively in the Cape Verde

Islands as a local application to the breast for the purpose of promoting lactation."

With a view of affording our physicians here an opportunity of testing the merits of this remedy, the writer, having availed himself of an opportunity of procuring a supply of the leaves through a friend who is largely engaged in the production of castor oil in the West Indies, has prepared a fluid extract of the leaves, of which one fluid ounce will represent one ounce Troy weight of the plant, which he will be glad to furnish gratuitously to any of the profession who may apply. The leaves will also be furnished for poultices. The writer would be thankful for a report of the results of any experiment that may be made.

A. CUSHMAN, *Pharmaceutist*.

941 Broadway, corner Twenty-second street.

UTERINE RETRACTOR.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—In your edition of the 30th ult. I noticed a communication from Prof. Gardner, claiming a priority of invention in the matter of uterine elevators. I take pleasure in yielding this point, and regard it as my misfortune, not my fault, that I had not myself, nor had the eminent gentlemen to whom I submitted my instrument, and by whose advice I published an account of it, seen its like before. I had consulted the catalogue of Messrs. Tiemann & Co., and found there no mention of such instruments, other than those of Drs. Sanger, Sims, and Elliot. Each of these, I took pains to examine, and "devised" my own instrument, because neither could fulfil the indications in a case under my treatment.

As to the objections urged against the "Retractor," I may be permitted simply to add that a *practical experience* of its aptness for the object proposed, inclines me in no respect to defer to the opinion of the distinguished professor.

Yours, &c.

H. WEBSTER JONES, M.D.

CHICAGO, April 2, 1861.

TREATMENT OF PNEUMONIA.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I have noticed in the MEDICAL TIMES and other medical journals, articles advocating the use of stimulants in pneumonia, as preferable to depletion. Now, I do not doubt that there are cases demanding the stimulating treatment throughout their entire course; but I am equally convinced that in other cases such treatment would be injurious, and depletion and arterial sedatives would be required. In the following case the latter treatment was pursued with the best results, and I inclose it for publication as an example of a class of cases met with in the country, which demand a sedative, rather than a stimulating plan of treatment.

Mr. D—s, farmer, æt. 25, was attacked March 3, with rigors, followed by fever, sharp pain in left side, cough, dyspnoea, etc. Was visited on same evening, and two pounds of blood taken from the arm; pain much relieved. March 4, pain returning, was bled again to the extent of two pounds, with great relief; a purgative administered. In the course of the day, began to expectorate rusty sputa. March 6, was called to see patient, to-day, and found him with the following symptoms: Countenance flushed; tongue moist and covered with whitish fur; position on the back; resp., fifty-two; pulse, 104, full; cough with rusty expectoration; dulness on percussion, over nearly whole left side; tubular respiration, and bronchophony. *Treatment*.—One pound blood taken from the arm; calomel and Dover's powder in small doses, once in six hours; fluid ext. verat. vir. gtt. iij. once in six hours. March 7, resp. twenty-eight; pulse, eighty-four; has no pain in side; expectoration opaque and white; cough less. March 8, resp. twenty; pulse seventy-two; can rest on

either side; less dulness on percussion; sub-crepitant râles over upper portion of lung. *Treatment*.—Verat. virid. gtt. iij. once in six hours. March 10, continues improving; sits up two hours per day; ord. quinine. March 12, feels well; walks about the room.

Yours, &c.,

S. S. CARTWRIGHT, M.D.

ROXBURY, Delaware co., N. Y., March 18.

OPERATION FOR THE REMOVAL OF NASO-PHARYNGEAL POLYPUS.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—As the subject of operation for the removal of the fibrous variety of naso-pharyngeal polypus has recently received some attention in the journals, I send you the report of the extirpation of (I believe) the largest nasal polypus ever removed, in this country, accomplished without disturbing the soft parts. The mode of operation, I think, is original, and when practicable, far superior to opening either palate or face.

May, 1858, J. S., seventeen years old, applied for treatment for tuberculous consolidation of apex of right lung. Observing that the breathing was performed entirely by the mouth, I investigated and found the posterior nares entirely occluded by a fibrous polypus which had descended almost to the edge of the velum palati; its broad end could easily be felt but not seen. He objected to being operated on because a celebrated surgeon had tried ten times, at one sitting, unsuccessfully to remove it. But believing that I could do more good to the nose than to the lung, I persuaded him to consent to one more trial. Finding that I could not touch the pedicle, or any other part, with the polypus forceps, I passed a curved loop of strong iron wire along the nasal floor; and on its appearance in the fauces, between the polypus and velum, the loop was expanded with the fingers and slipped behind the tumor. Strong traction caused the wire to pass upwards, encircling the upper portion of the growth, and drag it forwards. The polypus forceps, guided along the wire, easily found the origin and twisted off the tumor, which the patient expectorated into his hand. The polypus measures as follows:—Length, three and one-eighth inches circumference; around the broad end, four and three-quarters inches, and three inches around the centre. The patient is now in full health; no recurrence of the disease, and no lung trouble.

F. S. EDWARDS, M.D.

154 West Twenty-first street, March 25, 1861.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

January 10, 1861.

MR. TURNER, while lecturing upon the anatomy of the thorax, remarked that he had recently seen, at a post-mortem of a lad fifteen years old, the pericardium distended by between seventy and eighty ounces of fluid, which had been of course very gradually effused. A case recently died, in the medical wards of the infirmary, from cancer of the abdomen. When admitted three or four weeks ago only a hard movable lump in the right hypochondrium was discernible. In a few days, however, hard nodules began to be developed throughout the abdomen, vomiting was uncontrollable, the whole surface of the body became deeply jaundiced, emaciation rapidly advanced, and death supervened. No post-mortem was obtained, but nevertheless Professor Bennett made the case the text for some very apposite remarks upon cancer. He holds that every abnormal growth may become cancerous, and consequently advises excision in every case. He does not consider cancer as a blood disease, but, at first at least, a local ailment. He would urge upon surgeons not to be satisfied with apparent removal of the diseased part, but to have a microscope at hand and examine the cut surfaces, and not to rest until all diseased tissue is removed. He claims that cancer

always returns on account of diseased tissue being left, and not because, to use a popular phrase, it is *in the blood*. He scouts at the idea of any visible cancerous cachexia, saying that, when pathologist to the Royal Infirmary, he very frequently found cancer in persons who, during life, had never been supposed to labor under such disease. He thought that ultimately a microscope would be always employed, in order that it might be known when the knife had completely circumscribed the diseased tissue. He mentioned being present at an amputation at the hip joint, and the operator, slicing off a redundant strip from one of the flaps, finding it full of cancer cells. He predicted a return of the disease as a matter of course, and indeed it soon took place. Early excision of all morbid growths should be practised. The case of a friend was mentioned when cancer of the tongue was allowed to go on to a great extent, *because* it was cancer; but, even in this case, incision of all that could be got at prolonged life over a year. Ulcer of the stomach was next noticed. Fatal peritonitis was occasioned either by the spirit unadvisedly given on account of the great prostration present immediately after perforation takes place, or by the occurrence of the perforation after a meal. Opium, and entire abstinence from food for three or four days, and a little beef tea frequently repeated after that time, were the only remedies. Under this treatment recovery has taken place in one case at least in the Infirmary.

January 11.—Professor Simpson gave a resumé of the means proper to be had recourse to in delayed first stage of labor—venesection in young and plethoric subjects; tartar emetic to the extent of slight nausea; opium, when the irregular and spasmodic contractions of the uterus are fatiguing the patient more than advancing the labor; dilatation with the finger when the foregoing medical means prove abortive; and dilatation by means of india rubber bags introduced within the os uteri and blown up by an air syringe. Sponge tents may also be useful when the os is very small. Incisions may be called for on account of partial or complete obliteration of the os from cicatrized ulcers, or by reason of carcinoma of part of the cervix. Ipecacuanha, much used by the Irish practitioners under the name of hippo, he did not think possessed any advantages over tartar emetic. The india rubber bags introduced into use by Dr. Keiller, were open to the objection that they sometimes pushed back the head. A case was narrated where this occurred to a distinguished practitioner inducing prolapse of the funis, which *in its turn* necessitated turning. The vital necessity of attending to the state of the urinary bladder was enlarged upon, and cases related to show that the bladder may be so distended as to be confounded with the uterine tumor, or may be bent down into almost any part of the pelvis. The Professor remarked that, in the exceedingly rare cases of the presence of a urinary calculus during labor, it would be best to extract it by incision from the vagina, and not through the urethra and sphincter vesical. Have not the triumphs of Dr. J. M. Sims rendered this method *the* method proper to be had recourse to in all lithotomy in the female? Day before yesterday, Professor Bennett apparently introduced a tube into the trachea of a patient afflicted with chronic bronchitis and emphysema, and injected two drachms of a sol. of nitrate of silver, one scruple to one ounce of water. The patient was but very little discomposed by the operation, which will no doubt be repeated.

January 12th.—To-day I saw a very interesting case in the medical wards under care of Dr. Gairdner. On applying the stethoscope midway between the sternum and nipple a fine, almost musical, murmur was heard, with first sound of heart. If the stethoscope was shifted a little to one or the other side the sound disappeared. Looking at the root of the neck, a wavy motion in the large veins was plainly perceptible. Diagnosis—incompetency of tricuspid valves. A case of commencing aneurism was examined by the class. Symptoms of this were: 1st, Dulness on percussion behind upper part of sternum, unaccompanied by any enlargement

of the heart. 2d, A very loud harsh bruit, loudest over the sternum. 3d, Aphonia. At his lecture to-day on pathological anatomy, Dr. Rutherford Haldane showed the heart and lungs of a patient who had died of congestion of the lungs brought on by a severe cold, superadded to great constriction of mitral orifice. The heart was greatly enlarged, weighing twenty-two ounces, and the mitral orifice only one-half of an inch in diameter. The lungs exhibited the mottled appearance characteristic of great congestion or apoplexy.

Medical News.

ARMY MEDICAL INTELLIGENCE.—Surgeon C. H. Lamb, to duty in New Mexico, as Medical Director, and to relieve Surgeon W. S. King. On being relieved, Surgeon King will repair to the city of New York, and report to the Surgeon for instructions.—Surgeon A. N. McLaren, to temporary duty at Fort Hamilton, and Assistant Surgeon C. Sutherland, to temporary duty at Fort Columbus, N. Y.—Passed Assistant Surgeon R. C. Dean has been ordered to the United States Naval Hospital, New York.

SUCCESSOR TO PROF. MEIGS.—The Board of Trustees of Jefferson Medical College, Philadelphia, have elected William V. Keating, M.D., Professor of Obstetrics in place of Prof. C. N. Meigs. Dr. Keating edited the American edition of Ramsbotham's Midwifery.

FIRST USE OF ETHER IN SURGICAL OPERATIONS.—Dr. C. T. Jackson communicates to the *Boston Medical Journal* a letter, stating that Dr. W. C. Long, of Athens, Ga., presented to him, in 1854, evidence that he employed sulphuric ether as an anæsthetic agent as early as March 30, 1842; again July 3, 1842; a third time Sept. 9, 1843. The claim of priority is sustained by the affidavits of the patients upon whom the operations were performed.

A NEW ANÆSTHETIC.—A writer in the *Lancet* states, that the vapor of turpentine induces anæsthesia. The first case in which he employed it was neuralgia of the supra-orbital nerve; the turpentine was sprinkled on a handkerchief and inhaled in the same manner as chloroform. After a few inhalations a gentle sleep ensued, from which the patient awoke free from headache, or other unpleasant symptoms. He has since used it in slight operations, cramps, nervous irritation, etc., and found that it induced anæsthetic sleep.

SUDDEN WHITENING OF THE HAIR FROM TERROR.—A correspondent of the *Medical Times and Gazette* having asked for authentic instances of hair becoming grey within the space of one night, Mr. D. P. Parry, Staff-Surgeon at Aldershot, writes the following very remarkable account of a case of which he says he made memoranda shortly after the occurrence: "On February 19th, 1858, the column under General Franks, in the south of Oude, was engaged with a rebel force at the village of Chamda, and several prisoners were taken; one of them, a Sepoy of the Bengal army, was brought before the authorities for examination, and I being present had an opportunity of watching from the commencement the fact I am about to record. Divested of his uniform, and stripped completely naked, he was surrounded by the soldiers, and then first apparently became alive to the dangers of his position; he trembled violently, intense horror and despair were depicted in his countenance, and although he answered the questions addressed to him, he seemed almost stupefied with fear; while actually under observation, within the space of half an hour, his hair became grey on every portion of his head, it having been when first seen by us the glossy jet black of the Bengalee, aged about twenty-four. The attention of the bystanders was first attracted by the sergeant, whose prisoner he was, exclaiming, 'He is turning grey,' and I with several other persons watched its progress. Gradually but decidedly the change went on, and a uniform greyish colour was completed within the period above named."—*Med. Chir. Review.*

Original Lectures.

LECTURES ON DIPHTHERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE III. PART II.

Croup and diphtheria different diseases; the French authors with but few exceptions regard them as the same; Cullen describes diphtheria under the name of cynanche maligna, and draws the distinction between it and croup; points of difference not noticed by Cullen, diphtheria and scarlet fever distinct, though often concurrent; the double disease occasionally seen when diphtheria was not epidemic; Fothergill's epidemic was a union of the two; the one does not protect against the other. The influences that produce diphtheria seem to cause disease among the domesticated animals. Diphtheria chronic as well as acute.

WE come now to the inquiry whether diphtheria and croup are one disease. The latter term, since it was first proposed by Dr. Home, of Edinburgh, in 1765, has been used to distinguish a well known membranous inflammation of the air passages. The disease has in all probability always existed, though Dr. Home, when he gave it the new name, supposed it was peculiar to Scotland. Bretonneau, Trousseau, and, indeed, most of the French writers, make no distinction between these diseases, and with great uniformity speak of tracheal diphtheria as croup. But English and American physicians regard diphtheria as altogether a distinct affection. I have a manuscript copy of the lecture of Dr. Cullen, delivered in 1772, seven years after the publication of Dr. Home's treatise on croup. The distinction which he draws between the two diseases in his seventy-eighth and seventy-ninth lectures, embraces so many of the points that I had noted before it occurred to me to consult this manuscript, that I am tempted to present my own views, if I may so express myself, in his language. The term cynanche, or angina maligna, used in the following extracts, is now understood to be nothing more or less than the diphtheria of Bretonneau; and the disease described by Dr. Baird, under the name angina suffocativa, I shall show further on, is the same affection. The sloughs here spoken of are the diphtheritic membranes. Speaking of croup, or cynanche laryngea, or trachealis, he says: "I find the disease is confounded with the angina maligna, and authors are disputing whether it is one and the same disease. There is no one with whom I would be more averse to enter into dispute than my good friend and pupil Dr. Baird, of New York, who has given a dissertation to prove that angina suffocativa, and that plainly and without any doubt, is the malignant angina, only he takes it into his head to prove that it is the same with the croup of Dr. Home. I can explain the matter and resolve the whole difficulty easily, I think. It frequently happens that cynanche maligna, which has its first and principal seat on the mucous membrane of the tonsils and uvula, very often communicates itself and spreads downwards to the glottis and trachea, and to a considerable length in the bronchia, and there it is attended with the same sloughs that happen in the fauces, and will produce all the symptoms of cynanche stridula or trachealis; but every practitioner of this country is well assured that cynanche trachealis occurs without the symptoms of the other disease." In croup "there is commonly no tumor or redness in the fauces, but this is not universal, for some degree of it appears about the root of the tongue and epiglottis, and sometimes even considerably affecting the tonsils and mucous membrane. What is particularly to be attended to, it is without any of the gangrenous

symptoms of angina maligna; it is without any febrile anorexia, and considerable sickness and vomiting; it is not attended with any coryza or discharge of such acrid matter." "The cynanche maligna is of a spreading nature. It appears, first, often on a very small spot in the fauces, comes forward upon the palate and cheeks, and even spreads over the whole fauces and downward into the larynx," &c. "Cynanche maligna I think universally begins in the exterior (visible) fauces." "I am disposed to add another distinction, but with some uncertainty and doubt. I take the one disease to be constantly contagious, very rarely occurring in any other shape as *sporadic*. If it comes into a family where there is a number of children, it affects the whole; or if it comes into a country it commonly becomes epidemic. But with regard to cynanche laryngea or trachealis, on the other hand, it is a *sporadic disease*." "It is certain that we have seen it in fifty instances affecting a single child of a family or neighborhood. This I have seen to be the case with our croup, and I am much persuaded that it is not naturally, but when combined with some other contagious affection, that it appears as an epidemic."

These quotations will show how well the distinction was drawn by the first observer of his time, nearly a hundred years ago, and how well Bretonneau's diphtheria or diphtherite was understood in his day. But even Cullen does not exhaust the argument. There is no physician in this city, whatever his age may be, who has seen an epidemic of diphtheria, till within the last three years, and yet all are familiar with croup (cynanche trachealis). Until three years ago, nobody had seen croup of the nasal passages, or erupous membrane in the œsophagus, or in the mouth, on the gums, in the vagina or rectum, or on the skin. For these are the accidents of diphtheria, and not of croup. The formidable sequelæ of diphtheria, already explained, are novelties even to those who have had the widest observation in croup. Croup is a terribly fatal disease, yet in a city so large as this there are many recoveries. I may appeal to the experience of New York physicians and say that, till the recent epidemic, we have not known a croup that entailed, during convalescence, long continued alteration of the voice; paralysis more or less complete of the muscles engaged in deglutition; hemiplegia; strabismus; impaired vision; numbness and tingling in the feet and hands, followed by general paralysis more or less complete; anesthesia of parts, and sometimes large portions of the body; long continued anæmia, or any one of them. We know no form of croup that terminates in a fatal cyanosis without apnoea; or in hemorrhage and purpura; or in gradual sinking without apparent cause, or in sudden collapse when all the symptoms promise recovery; or in convulsions or coma under the same circumstances. Yet we have seen all these things in diphtheria, and some, alas! too often. In croup the danger is the direct ratio of the severity of the local inflammation, the membranous trachitis, or the bronchitis or pneumonia that follows after. In diphtheria when it is tracheal, the urgent danger is the same as in croup; but if the membrane is discharged, there is little fear of fatal bronchitis or pneumonia. Collapse occurs in croup, but it is while the membrane is still attached or directly after it is removed; there are no prolonged intervening periods of improvement. But the great destructive fact is yet to be stated. It is that in diphtheria a much greater number of children die among those whose air-passages have not been touched by the disease, and whose breathing has not been embarrassed for a single minute, than among those suffering from tracheal obstruction. Mark, I do not say a larger proportion, but a great number. There is no variety of diphtheria so murderous as the tracheal. Croup itself does not surpass it in fatality. But fortunately it is not the most common form. There are probably eight or ten cases of tonsillar, pharyngeal, nasal, and œsophageal diphtheria in which the membrane does not extend to the larynx and trachea, for one in which it does. Now, while it is out of this larger class that most of the recoveries occur, this same class still furnishes the greater mortality. We

may say then that diphtheria destroys more than half its victims by methods entirely unknown to croup. By way of parenthesis I must say what was omitted in its proper place—that the extraordinary swelling of the cervical glands, so common in diphtheria, is unknown in croup. In diphtheria it is rare that there is not some external swelling, often it is enormous. In croup, if it occurs at all, it is so infrequent or so slight as not to form a feature of the disease. I believe you will search in vain through the best English and American description of the disease for any mention of it. Finally, let me add that croup has been regarded as a disease of childhood so that instances of it in adults have been long cited as medical curiosities, and that diphtheria, though it is emphatically a disease of childhood, does not spare adults or even the aged.

In view of all these facts can you doubt that croup and diphtheria are different affections? Is not the first what it has been held to be since the time of Home, a local affection; and the other what a world of facts proclaim it, a general disease, or, to use a favorite phrase, "the result of a blood poison," "a blood disease." *Call it epidemic croup if you will*, but do not fail to add, that it has distinctive, cardinal features, unknown to sporadic croup.

There is still another question to be answered: Is not diphtheria really scarlet fever without eruption? This question is not often asked by those who have formed a practical acquaintance with the disease. Nobody can read the descriptions of Bretonneau and Trousseau, and suppose that their diphtheria was in any manner dependent on scarlet fever poison; but while we had not yet seen it here, I confess there was lurking in my own mind a suspicion that the sore throats which adults often experience when attending children sick with scarlet fever, had become generalized and were epidemic at Halifax and at Albany. The error did not long survive an actual acquaintance. It is true that from Fothergill to Cullen, the physicians of the British islands confounded angina maligna and scarlet fever, holding that the throat disorder was attended by an eruption; but they attached the eruption to the sore throat, and overlooked the scarlet fever entirely. We now know, or think we know, that their disease was a union of the two, which occurred as a wide-spread epidemic, lasting for many years. We are familiar with this union, as you have already learned. It occurs occasionally now. But the disease which was noticed in France about the end of the first quarter of the present century, and reached this continent a few years ago, has for the most part been entirely independent of scarlet fever. Yet when this exanthem is prevailing epidemically at the same time with diphtheria they will sometimes concur in the same person. Indeed, something more than this may be said. During the twenty-six years that I have been in the profession, I have seen, perhaps ten, perhaps fifteen times, I cannot say exactly how often, the sore throat of scarlet fever become covered with a white or greyish membrane in the later period of the eruption; soon the croupy breathing, cough, and voice have followed. In some of the fatal cases, for most of them were such, a post-mortem examination has been allowed, and has disclosed a membrane lining the air passages, more or less extensively, which in its general and microscopical characters was the same as the exudations described in my first lecture. This has occurred without any general outbreak of diphtheria, and without any noticeable increase in the cases of croup. This complication would occur in two or more children of the same family. In other words, we have seen the malignant sore throat of Fothergill and Cullen occasionally in single families, but not prevailing as an epidemic.

Acknowledging the alliance here stated, and as it has been explained in an earlier lecture, I will now attempt to convince you that diphtheria and scarlet fever are distinct diseases. It is only in exceptional instances that there is any eruption in the course of diphtheria, and then scarlet fever is prevailing, and, for the most part, exists in other members of the family, without the membranous disease; or,

admitting the statement of the Lancet Commission, it is in rare epidemics attended by an efflorescence of its own with which scarlatina "has nothing in common," still the great fact stands out prominently from almost all the histories of extensive epidemics, that diphtheria has no eruption. It has indeed none of the symptoms of scarlatina, except the febrile movement and the sore throat. The "strawberry tongue," almost invariably present in scarlet fever, does not exist. There is no cutaneous desquamation. There is no subsequent anasarca. Diphtheria has no definite "periods." It is not, in the sense scarlet fever is, a self-limited disease. Its period of invasion is from twelve hours to fourteen days; and the duration of its characteristic period varies as much. On the other hand, scarlatina does not count among its sequelae the paralytic affections just now enumerated. It has neither the slow exsanguine convalescence of severe diphtheria, nor the ephemeral duration and rapid recovery of many of the milder cases. Then the power these diseases show of modifying each other, when diphtheria is the prior affection, must not be overlooked. You have seen, in the cases already related, that it can delay the eruption; that it can cause the eruption to remain for double its natural period, interfering with the natural succession of stages of the eruptive disease; or that it can be suspended and postponed by scarlet fever, to be renewed after the latter and a kindred disease have run their course. Scarlet fever has no remissions or relapses; diphtheria has both. It is not uncommon to find the membrane on the tonsils, to see it fall off in one or two days with symptoms of amendment, and in two or three days more to discover it anew, attended with graver symptoms than before. Scarlet fever very rarely attacks the same person a second time; the recurrence of diphtheria, after months or a year, is not uncommon. We have seen such cases already in New York. Greenhow has reported numerous instances (p. 111, Lond. ed.). But the most significant fact is still to be related—neither of these diseases has any power to protect the system against the other. Dr. John Watson, in a communication to the New York Academy of Medicine, published in the AMERICAN MEDICAL TIMES, informs us that "In a large family of children, diphtheria affected every child, yet I had previously attended these children with scarlet fever. In another family diphtheria occurred first and scarlatina afterwards." "Several such instances fell under my observation." Statements of similar import can be made by most of our physicians. Greenhow (p. 107 and onward) records examples enough to place the fact beyond all doubt. Finally, diphtheria without eruption has never been suspected of propagating scarlet fever; and scarlet fever without membranous angina has not been charged with producing diphtheria. Diphtheria is the *ulcus Egyptiacum* vel *Syriacum*, *cynanche maligna*, *angina maligna*, *angina gangrenosa*, *morbus suffocans*, *morbus suffocativus*, *angina suffocativa*, the sore throat distemper, the gangrenous sore throat of different authors, but it is not scarlatina.

In our study of the influences that produce diphtheria, it is interesting to notice the rather frequent concurrence of disease among the domestic animals, and the membranous affection in man. The distempers to which I allude have been known by many names, of late more commonly as "the eruptive disease," and "the pulmonary murrain." The eruptive disease has been described as an aphthous ulceration of the mouth, lips, and nose, with vesicles and ulcers on the teats and feet; and in some of the descriptions it is called a malignant angina. The pulmonary murrain, since the examination of its characters made by Prof. Gluge of Brussels, has been known as "exudative pleuro-pneumonia." Dr. James Sims, President of the Medical Society of London in 1787, appears to have been the first English writer that has noticed this concurrence. Referring to that Slaughter of the Innocents which commenced at Naples in 1618, and continued for twenty years, bringing the sore-throat distemper into almost every family in that part of Italy, he says, "It was preceded by a similar disorder among cattle." According to Greenhow, Ghisi, who had

the credit of having first described the membrane of croup (that merit being really due to Villa Real, as will be seen hereafter), as he saw it in an epidemic at Cremona, one hundred and thirteen years ago, found there a disease affecting the air passages of cattle prevailing at the same time. Dr. Wall, quoted by Greenhow, referring to the English epidemic of 1747, says, "This disease has so great a resemblance to the epidemic sickness among cattle, that I am persuaded it is of the same nature." Of the epidemic sore throat of Paris, in 1746, M. Malvain reports that the disease had appeared among cows before children were attacked. Greenhow, speaking of the recent epidemic in England, says, "Both the eruptive and pulmonary murrain have in many districts prevailed contemporaneously with diphtheria. I have myself ascertained this fact with regard to London." He cites many authorities in support of this doctrine of concurrence. He states that the epidemic described by Fothergill and his contemporaries was attended by an epizootic pulmonary murrain, preceded by an eruptive murrain. In 1839 these diseases prevailed among the cattle of England apparently without diphtheria, but it reappeared in 1855-7, almost contemporaneously with the recent epidemic.

It will not fail to impress your minds that an epizooty of pulmonary murrain, or "exudative pleuro-pneumonia," as it was generally denominated in the newspapers, has lately attracted much attention, and has indeed been the subject of legislative action in one or more of the New England States; and that this disease began its ravages among the herds of Massachusetts after diphtheria appeared at Halifax, N. S., while it was prevailing in New York, and before any considerable epidemic manifestations in Massachusetts. I would not have you infer too much from these statements, and many more of the same import given by Greenhow. We do not find evidence that every outbreak of membranous sore throat has been attended or preceded by disease in domestic animals; and one of the statements I have quoted appears to show that these affections may occur in cattle while there is no diphtheria and no threatening of it. But I have said enough to show you that this coincidence is an interesting topic of inquiry, and here, in the present state of our knowledge, we are compelled to leave it.

Diphtheria is not always an acute disease. It sometimes occurs as a chronic affection. A white or bluish-white thin membrane, sometimes diaphanous, is formed on some mucous surface and remains there, or is many times renewed, for weeks. The tissue on which it is produced is not much swollen, but it is red, as can be seen when the exudation is removed, or through its substance, and the redness extends for some distance beyond the patch or band. It is more disposed to fasten itself on the pharynx or arches of the palate than on the tonsils, and has been seen on the gums. It is not a very painful affection, and the constitutional symptoms are not very active. Whether of itself alone, uncomplicated, it is ever fatal, I am not able to say. It has not been so in any of the very few cases that I have seen. I am equally unable to inform you whether the paralytic disorders that sometimes make so unpleasant a part of acute diphtheria are ever noticed in the chronic variety. The disease has not been described by any author, in the limited circle of my reading, though it is occasionally spoken of as occurring, and my own observation is much too limited to enable me to give its natural history. A case occurred at St. Luke's Hospital, during my last term of service in that institution, and the patient died of secondary meningitis under the care of Dr. Heywood, who succeeded me. The history has been drawn up by Dr. Edward B. Dalton, the Resident Physician, and may be published, perhaps, in the same number of the *Times* that will contain this lecture. The patient was a man, forty-eight years of age, who had suffered from sore throat for three months previous to his admission. When first seen he had diffused inflammation of the fauces and larynx, which rendered swallowing difficult and almost destroyed his voice. Although an exudation was noticed in the fauces and pharynx, it was thought to be mucus. Its true character was not recognised for

some days. After that the case attracted considerable attention. Whenever inspected, irregular bands of both white and bluish semi-transparent exudation were seen in the fauces, their length being from above downwards. This membrane was closely adherent, and seemed to have little disposition to fall off, and none to become organized. The throat underwent but little change while under my notice. On the 10th of February, however, when the cerebral symptoms were noticed, the membrane was no longer seen. It is, I think, safe to assume that it lasted for one month, at least, while it is probable it had existed for some time before his admission. It was attended by moderate debility, but not such as to prevent the patient walking about the ward. The mode of his death raises anew the inquiry first propounded by Dr. Gull, of London, whether the diphtheritic inflammation of the fauces may not provoke inflammatory disease in the membranes of the spinal cord in the neck, and from this extend to the meninges of the brain. [For the case in detail, see p. 274 of the present number.—Ed.] According to Bretonneau (Mem. p. 179), Queen Hortense suffered for several months from gingival diphtheria; and he establishes in his own mind the relations of the chronic and acute forms of the disease by the belief that the croup that destroyed her first-born, and the diphtheria which afterwards terminated in a few days the life of the Empress Josephine, were both derived from that chronic affection of the gums. But I must dismiss this topic. I do it, however, with the statement that the history of chronic diphtheria is yet to be written.

Military Surgery.

A COURSE OF LECTURES

DELIVERED AT THE

BELLEVUE MEDICAL COLLEGE HOSPITAL

BY

FRANK H. HAMILTON, M.D.,

PROFESSOR OF THE PRINCIPLES AND PRACTICE OF SURGERY.

LECTURE I. PART I.

Mission of the Military Surgeon. Distinction between Civil and Military Surgery. The necessity for Dispatch and Ingenuity in the treatment of the Wounded. Value of the Services of a Military Surgeon. Feigned Diseases, etc. The Importance of Field Ambulances. Incident in the life of Ambrose Paré. Rescuing the wounded, etc.

GENTLEMEN:—War is the normal condition of mankind; peace is the abnormal condition. This statement is not flattering to a people claiming Christianity and boasting of its civilization; it is nevertheless true, and the fact must be accepted. History is little else than a record of the contentions, conflicts, and conquests of nations. The sword and the cross, conventional emblems of battle-fields, stand as thick upon the round surface of the terrestrial sphere as stars upon the surface of the celestial. Each year, and almost every month in the year, commemorates some new achievement of arms, and places a new symbol upon the map; so that now, in the middle of the nineteenth century, as when Isaiah wrote, it is only in prophetic vision that we see the approach of that happy day when "swords shall be beaten into ploughshares and spears into pruning-hooks, and nations shall not learn war any more."

We must not be surprised, therefore, that a great part of mankind have occupied themselves, and still continue to occupy themselves, in the improvement and perfection of the art of war; nor that it has come at last to take rank almost among the exact sciences. It has been the study especially of kings, princes, governors, statesmen, philosophers, and military chieftains, who have created for it a factitious, but universally conceded, nobility, by virtue of which it takes precedence of all other sciences, while it condescends, in order to the attainment of its selfish ends, to impress them into its service.

But surgery, like many other departments of knowledge,

which have been compelled to submit to this tyranny, and to contribute reluctantly to the perfection of a barbarous art, has, in its application to the purposes of war, we are happy to say, other and more legitimate ends. It is equally the mission of the Military Surgeon to prevent, as far as possible, all useless expenditure of life. In civilized warfare life is spared whenever a firelock is grounded, or an arm is disabled; and, so well is this understood, the wounded soldier does not hesitate to throw himself upon the mercy of his captors for surgical aid, since he is equally certain of receiving succor from the surgical corps of a foe as of a friend. Consider how much this serves to soften the savage aspect of war; that if battles must be fought, the results should be obtained with as little sacrifice of life, with as little mutilation and suffering as possible. The world, gentlemen, is indebted to our profession for this.

At the same time, also, many excellent surgeons bring away from these great schools of practice valuable lessons of experience, which, being carefully written down, are of service to those who live after them. Waterloo, Sevastopol, and Solferino, witnessed each a terrible slaughter of human beings; but let us hope that in the faithful "annals of their sufferings," recorded by Larrey, Guthrie, Hennen, Armand, and others, the world will find some compensation, if not actual occasion for gratitude, since they have added so many new fasciculi to our stores of knowledge; and since it is not impossible the lives which will be thereby saved will outnumber the lives which were lost in those battles. "It is one of the happy privileges of the military surgeon," says Armand, "to draw from the state of war precepts which console humanity, by turning to his profit the observations and the treatment of the maladies which follow in its train."

Military and naval surgery is not a new and distinct science, but only the science of medicine in its largest sense, with a special application. The principles of civil and military surgery are the same, or nearly the same; but the application of those principles is varied or modified, according to the varying exigencies of the case. Anatomy, physiology, chemistry, botany, and pharmacy, lie at the foundation of each; and what of these has been learned in the schools is equally applicable to both. So also the sciences of military practice, military surgery, and military hygiene, are nearly identical in their fundamental laws, with the civil sciences so named; but they differ occasionally in their subordinate rules; more often in their modes of procedure, and in the use of means by which they seek to accomplish the same ends. But perhaps the widest difference will be found to consist in the relative frequency of certain accidents and diseases; inasmuch that what is of daily occurrence, and a common experience in the one, is rarely seen in the other, and the reverse.

A few examples will illustrate these important differences. It is well known that certain conditions of the limb generally demand amputation in military practice; as, for example, a gunshot wound traversing a large joint; while the same conditions do not necessarily exact the same sacrifice in civil practice. This change or modification of the rule evidently has reference to the altered condition of treatment to which the soldier and civilian will probably be subjected.

In civil practice, the time occupied in any operation, especially since the introduction of anesthetics, is generally regarded as a matter of secondary importance. And that mode which possesses even trifling points of superiority with reference to the final result, even though more tedious in its execution, justly claims the preference. Here we may properly apply the maxim, "*sat cito, si sat bene.*" But in military practice, at least in most operations made upon the field, and where, as is usually the case, the number of surgeons is small in proportion to the number of wounded, time is of the first importance, and minor preferences must yield to major necessities. It will not do to let one man die of hæmorrhage from the femoral artery because you wish to apply a ligature very methodically to

the ulnar artery of another, nor to amputate a limb by circular incisions, when by oval incisions it can be done in half the time. Armand, whose noble sentiments one is frequently compelled to admire, speaking of his experience as surgeon to the ambulance of the Imperial Guard during the Crimean war, observes, "In ordinary times of the siege, the local barracks, or the tents, sufficed. In the grand engagements, the encumbrance of the wounded was such that it became necessary to gather them into groups here and there; and God knows, then, how painful was the mission of the surgeons, who were compelled to multiply themselves to succor the hundreds, the thousands of the wounded constantly imploring their aid!" There was but one precept then, "*Cite! citissime!*"

Broken limbs, when dressed in the midst of an engagement, cannot exact the same amount of care and attention in their adjustment as in a well supplied hospital, or as in ordinary private practice. The appliances must be simple, few, and, in many cases, measurably inadequate. They must be adapted especially to the conditions requisite for transportation. Complicated double-inclined planes, pulleys, and swings, however useful they might be for limbs at rest, are wholly inapplicable to those cases in which the patient has to be transported long distances in wagons and over rough roads. The most enthusiastic advocate of Pott's treatment of broken limbs, without side splints or extension, would never be so absurd as to claim for it a preference under these circumstances.

General treatises upon surgery and surgical teachers, assume that both the patient and his medical attendant are placed always under the most favorable circumstances: that ample time is allowed for a careful diagnosis; and, in view of an operation, that the patient is brought up to the best possible condition of preparation; that he is at least comfortably lodged, suitably nourished, and that his surgeon has at his command all the instruments and appliances which can render the execution of the operation more easy, and its success more certain. No man who has had much experience in teaching, and in examining medical students, can have failed to notice the danger of suggesting inferior alternatives for exceptional cases, which, through inattention or carelessness, are often substituted in the minds of the pupil for the general law; and it is with much propriety, therefore, that these omissions are generally made.

It is the special province of military and naval surgery to supply these deficiencies; instructing the pupil how, by a multitude of extemporaneous expedients, he may succor the wounded and relieve the sick when the usual resources fail or are not at hand; how he may make the products of every country contribute to his necessities, and a single cruse of oil minister miraculously to a thousand.

As we have intimated, however, the widest difference between civil and military surgery is to be found in the relative frequency of certain accidents and diseases. Club-foot, rickets, hip-disease, and strabismus, are of every-day occurrence in domestic and city hospital practice, while they are almost unknown to army practice. On the other hand, scurvy, gunshot, sword, and bayonet wounds are rarely met with in the first, while they are common in the second.

Such as remain sceptical upon this point have only to enter successively, the wards of a military and of a civil hospital; to compare with each other a civil and a military dispensary; or examine the private records of a civil and of a military surgeon, to convince themselves that the two schools do not furnish, relatively, the same instruction.

In order to be prepared, also, for all the duties imposed upon an army surgeon, one must understand what are the peculiar physical qualifications necessary to become an efficient soldier—what conditions imply health, endurance, agility, and we may add, courage. It is the first part of a surgeon's duty to select and arrange the tools by which the work is to be done, and the remainder of his duty is to keep these tools in order.

Will any one say that our services are unimportant, and

our position a subordinate one in the business of war? The fact is, that neither tactics nor strategy will serve an army of invalids. These men perish or are demoralized when no enemy is opposed to them; and more than one campaign, which opened auspiciously, has been brought to a disastrous close in consequence of the injudicious selection of recruits, and of the lack of suitable provisions on the part of the government or of the officers for the preservation of their health. The mortifying termination of several campaigns, especially at the North, during the war of 1812 in this country, sufficiently demonstrates the truth of these assertions.

Feigned diseases, also, need to be studied. They bear the same relations, in military surgery, to actual diseases, as sophisticated drugs bear to the genuine; and to occupy a position of trust in the medical staff of the army, without some knowledge of the ingenious dissimulations practised by soldiers to relieve themselves from duty, or to obtain a discharge and a pension, would be as unjust to the public whom you serve as to undertake the duties of a pharmacist or of a drug-inspector without any competent knowledge of the art of sophistication.

The diet, dress, and general hygiene of the troops; the transport of the sick and wounded; the construction and location of tents, barracks, and hospitals, with a view to their healthfulness; the arrangement of bivouacs; are among the subjects which properly belong to this branch of surgery.

Finally, as not the least valuable of those accomplishments which ought to adorn an army medical officer, we must not omit to enumerate a thorough knowledge of geography, climatology, meteorology, geology, and botany, with many other kindred subjects belonging to the natural sciences.

Remember, gentlemen, that when you enter the army or the navy of the United States, you will be brought into immediate association with a body of highly educated and polished gentlemen. It is one distinction of the American military system which the English have not yet reached, that every commissioned officer of the line has attained his position, not by purchase, by nepotism, or by any other species of favoritism, but only through a regular curriculum, passed in either the army or naval schools, established under authority of the government, at West Point and Annapolis.

If the citizens of the United States of America may justly feel proud of the high character which the officers of the line, both in the army and navy, have acquired at home and abroad; we have no less reason to feel proud of the honorable distinction which our army and naval medical boards have acquired by the rigor of their examinations; and through them, of the recognised elevated standing of its medical officers. No one has been admitted to the rank of Assistant Surgeon, or been promoted to the rank of Surgeon in the American regular service, for many years, who did not possess the most eminent qualifications, both medical and literary, for those positions; nor are they likely hereafter to abate the stringency of their demands, as you will probably learn if you ever go before them for examination.

While improvements are being constantly made in the construction of firearms and of other weapons of warfare, and the art of war is advancing step by step towards the complete attainment of its purpose, it is delightful to observe how steadily, yet silently, the genius of medicine follows upon its heavy tread. The introduction of gunpowder as an instrument of war, was soon followed by the discovery and application of the ligature to wounded arteries after amputations. So that if thereafter the soldiers were not permitted to escape the terrible wounds inflicted by bullets and "fiery balls," they were saved from the more appalling infliction of having their mutilated stumps plunged into boiling pitch, to arrest the bleeding. And in our own day, the conical bullet and the rifled cannon have been overtaken by the discovery of the anæsthetic properties of chloroform and of ether.

The establishment of flying or field ambulances has also contributed greatly to the amelioration of the condition of

the soldier, and, it may be said, to the efficiency of the service.

They are usually composed of the medical staff and picked men, who hang upon the rear, and press themselves into the very shadow of the advancing columns; and while the surgeons, with their assistants, stationed here and there, in places of partial security, are prepared to render prompt surgical aid, the men who are especially charged with that duty, bring the wounded in panniers and upon litters to the several regimental depots.

The practice of employing field ambulances is now almost universal, but the plan of organization is much varied by different nations.

Richter, Physician General to the 8th corps of the Prussian army, who has devoted much attention to this subject, and to whose suggestions the Prussian army is indebted for its present excellent system of field ambulances, informs us that Austria, ever since the Italian and Hungarian campaigns, in 1848 and 1849, has employed with great success "*des troupes de santé*," and that this institution has been imitated in Bavaria, Saxony, and Hanover.

The Prussian system, established by Royal ordinance in 1854, may serve as a model, or as an example most deserving of imitation. The "*Compagnies des porte-malades*," as they are sometimes called, are composed of one captain, three lieutenants, three assistant surgeons, with the rank of lieutenants; 203 men, of which 17 are non-commissioned officers, including a sergeant major and a quartermaster; 16 exempts (*premier soldats*) and 6 *clairons*.

Each company is divided into three squads, that is to say, one squad for each hospital ambulance of the three grand divisions of the army. Each squad is composed of 10 officers and 1 assistant surgeon, each of which is furnished with two horses; five non-commissioned officers, 60 soldiers and exempts, and 2 *clairons*.

Each squad has 15 litters, equal to 45 for the whole company.

In the American service the system of flying ambulances is less complete and perfect in its details. The only assistance which a regimental surgeon and his adjuncts can claim upon the field of battle, is that of the band, and of a hospital orderly, who, by an order of the army board, made in Nov. 1859, is required to accompany the medical officer whether upon the march or in the field; the orderly carrying upon his back a knapsack, in which are placed such instruments, dressings, and medicines as may be needed in an emergency.

As to the value and importance of a well regulated system of field ambulances, it might be sufficient to say, that all of the army surgeons are agreed upon this subject, and its claims have been repeatedly urged by Percy, Hennen, Guthrie, Larrey, Jackson, Armand, Richter, Mann, and others, and that by most of the enlightened governments of Europe they have been adopted and carried out to an admirable degree of perfection.

But since the government of the United States has been slow to accept of all of the improvements in this department, introduced and now fairly tested abroad, it will be proper to enumerate some of their advantages.

It will not be denied that humanity, and a just policy of economy, dictate that the wounded should receive succor as soon as possible, and that for this purpose the surgeons, with their assistants, ought to be stationed as near to the field of action as is consistent with their own safety, and the safety of those who are under their charge; nor will it be doubted that soldiers and officers will be less reluctant to expose themselves to the hazards of a battle when they feel assured that competent surgical aid is at hand. Whatever may be a man's apparent disregard of life, experience shows that most men, even when in heat, would of the two, rather kill their antagonists than die themselves. To be wounded may be honorable, but to die perchance is unnecessary. And better soldiers than Falstaff—nor is it any reflection upon their courage to say so—have probably uttered his soliloquy upon the eve of battle: "Can honor set to a broken leg? No. Or an arm? No. Or take away

the grief of a wound? No. Honor hath no skill in surgery then? No."

There is a single incident in the life of Ambrose Paré, which, having been often mentioned by historical writers, is probably familiar to you all, but which, as furnishing a pertinent illustration of the confidence inspired in a whole army by the immediate presence of a skilful surgeon, merits a repetition at this time.

The ancient city of Metz was at one time besieged by an army of one hundred thousand men, commanded by Charles the Fifth in person. Within the walls were gathered a multitude of men, including nearly all the princes and nobility of France. Decimated by famine, disease, and by wounds received in the protracted defence, the garrison were reduced almost to extremities. At this critical juncture the king sent to them his own surgeon, the great Paré, who had been successively surgeon to four kings of France, and who had during this period followed the French armies in all their campaigns. He was introduced into the city at night, by an Italian captain, and on the following morning being requested by the governor to show himself upon the breach, he was received by the soldiers with shouts of triumph. "We shall not die," they exclaimed "even though wounded—Paré is among us!" From this time the defence was conducted with renewed vigor; and to the presence of this single man it has been universally conceded that the city was indebted for its salvation, although the siege was not raised until "the gallant army which lay around it had perished beneath its walls."

The value of medical services to an army, in a strategic, economical, and humane point of view, is indisputable.

The only real question then is as to the best mode of getting the soldiers wounded in battle to the hospital depots.

A considerable proportion find no difficulty in reaching the depots without assistance; and it is wonderful sometimes through how small a wound a large amount of courage will ooze out. The slightest prick of a bayonet or the loss of a finger will cripple some men and send them halting to the rear. These soldiers will take care of themselves.

But when a man falls who is seriously wounded, and not killed outright, it is a common practice in both the American and British service for the officer in command to order a couple of soldiers to carry him off. This withdraws three men from the line instead of one. But unfortunately it is well known that soldiers do not always wait for this authority. The commanding officer is not always where he can observe the conduct of all of his men, and impelled by the instinct of humanity, they, in many instances cheerfully anticipate the supposed wishes of their officers, and seizing their fallen comrade they bear him hastily from the field. The effect of this is most demoralizing; for while it actually and materially diminishes the force of the column, it diverts the attention of the soldiers and of the officers from their first purpose, especially by substituting the more delicate and enervating sentiments of humanity for those coarser but more stimulating passions, revenge and ambition, by which the courage of troops is chiefly sustained.

Ballingal says: "We find the Duke of Wellington, in his general order, cautioning the commanding officers of regiments, and the officers and non-commissioned officers of companies, to take care that no man falls out of the ranks under pretence of assisting the wounded, when he is not ordered to do so by his officer," and Mr. Alcock states that he has seen "in less than an hour, a whole battalion tail off after some fifty wounded."

There are many circumstances under which the escape of the wounded soldier from the mêlée of the conflict is impossible; and in which the incessant pressure of troops from the rear presents no alternative but to be trodden under foot by men and horses, or to be crushed by the wheels of the cannon. If, however, the storm of battle has

in some measure passed over and the wounded man is on that side of the clouds from which the rainbow can be seen—and it is to such alone that assistance can ever be offered—then he may be easily rescued by the soldiers of the ambulance, and borne upon a litter to a place of safety. The army will, in this way, be separated into two distinct, yet very disproportionate bodies. The one being occupied solely in killing, maiming, and mutilating, and the other in ministering to the sufferings of the wounded: thus no infection will be communicated from one to the other, and the morale of both will be preserved.

Original Communications.

DIFFICULT OBSTETRICAL CASES.

BY GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

(Continued from page 192.)

CASE LVII.—*Intra-Uterine Endocarditis.*—*Calcareous Deposit.*

ELEN FARRALL, aged 32, third confinement, Nov. 13, 1852, Lying-in Asylum.—Head presenting, second position, ten hours in labor. Boy living, weight seven pounds eight ounces. Placenta healthy, weighing one pound three ounces, seven inches in diameter. Cord twenty-one inches long.

Child very weak when born, could only be made to respire with difficulty, and never very satisfactorily. The next day it died in convulsions, preceded by symptoms of imperfect aeration of the blood.

Drs. Isaacs and Metcalfe were present at the post-mortem, and pronounced the result as unique in their experience; and Dr. Metcalfe has not seen a similar case since. The heart presented evident traces of endocarditis. Auricular septum thickened, folded on itself, and gritty to the touch. Patency of foramen ovale doubtful. Tricuspid and mitral valves thickened, and presenting this gritty deposit on their free edges. No chemical or microscopic examination made, though the deposit must have been calcareous.

This brief record is all that I have of this very interesting case; but I am sure, from the character of the gentlemen directing the examination, that it could not have disclosed any other peculiarities worthy of note. I had not met with any records of similar cases, but on applying to my friend Dr. Jacobi for information, he wrote me the following letter:

DEAR DR.—Your case of atheromatous degeneration of the auricular septum, and the tricuspid and mitral valves, in a newly born child, is one of great interest to me. I have never seen the like, as such cases of congenital cyanosis, depending on endocarditis, as have come under my own observation, did not exhibit any deposits of eretaceous nature, nor have I been able to find any cases like yours in Peacock's 'Malformation of the Human Heart, etc., with original cases, Lond., 1858.' Dr. P. has such cases only as will occasionally occur in any physician's practice, viz. cases of congenital endocarditis with thickening, 'induration,' and shortening of the valves, nor does he appear to have found anything noteworthy in literature. But in Dr. Friedberg's book on the 'Congenital Diseases of the Heart and the large Blood Vessels of Men, etc., Leipzig, 1844,' which seems to have been entirely overlooked by Dr. Peacock, there are remarks on congenital atheromatous degeneration of the endocardium of great interest. For instance, p. 79, 'It is a remarkable fact, that the inflammatory and atheromatous process is frequently found on the right side in congenital disease of the heart, while it occurs most exclusively on the left side in diseases of the heart acquired in later life.' 'Of fifty cases of congenital heart diseases, collected without a special purpose, I have found atheromatous degeneration and conglutination of the valves, with more or less coarctation of the ostia, in thirty-five on the right side, and

in six on the left. Of thirty-five cases of congenital diseases of the heart, Meckel has found coarctation of the right aorta (pulmonary artery), in fourteen, and complete obstruction in six, etc., etc.,' p. 80. 'Insufficiency (atrophy) of the valves, both from shortening and retiform perforation is less frequent in congenital cases than in acquired ones, and is therefore rarer in children than in adults. "In these cases shortening is mostly the consequence of atheromatous or inflammatory affections, and is not only found, as in adults, in the bicuspid and mitral valves, but in all the valves of the heart, and particularly on the valvula foraminis ovale (exactly your case). The other form of incompetency, viz. perforation, which, in adults, is met with in all the valves, is found in the valvula foraminis ovale et Eustachii only in congenital cases. Perforation of the valvula Eustachii, is normal, however, and commences when the function of the valve ceases,' p. 111. In such cases where the vena cava inferior is not transferred from the left atrium to the right, nor the foramen ovale covered by its valve, or in such as do not show the regular transformation of the large arterial vessels, 'there is either incompetency of the valves, or degeneration from inflammatory or atheromatous affection, alone, or complicated with dilatation or coarctation of the orifices,' p. 113. 'Patency of the foramen ovale is found in some cases . . . with degeneration of the valves; thus for instance, a case of Morgagni's where but a small part of the orifice was unobstructed by the ossified and partially conglutinated valves,' pp. 117. Malformations of the aortic valves are generally produced by an inflammatory or atheromatous process taking place pretty late in a period of foetal life where the valves have obtained a goodly size,' pp. 119. 'Malformations of the (left heart) aortic valves are very rare. They consist in a cartilaginous condition of the semilunar valves and a partial conglutination of their margins, as in Louis, IX., observation. At all events, there is as yet no proof whether the inflammatory or atheromatous process by which they are brought on has taken place before birth or after.'

Prof. August Förster, in 'The Deformities of Man, with an Atlas of 26 Plates, Jena, 1861,' p. 143, has the following remarks on the subject: 'Stenosis and abrasia of the ostia arteriosa and venosa depend mostly on foetal endocarditis and myocarditis. A few, however, may result from other processes. Stenosis is mostly found at the ostium of the a. pulmonalis. Endocarditis and myocarditis, being met with mostly on the left side of the heart after birth, are principally found on the right side, and particularly on the pulmonalis in the foetus. On its ostium we meet with the same alterations (table xix. figure 16), frequently found on the semilunares aortæ, in adults, viz. Thickening and ossification of the valves, conglutination of the margins, and, in some cases, complete atresia of the ostium. In all these cases the septum ventriculorum remains very defective, the aorta, which is large, originates in both ventricles, being, however, well formed; the pulmonalis is usually narrow; in some cases, however, very large; the ductus Botalli is either closed or remains open; through it, in cases of complete atresia of the ostium, the ramifications of the pulmonary artery obtain the blood from the aorta, as in cases of atresia of the entire pulmonalis,' etc.

Beyond some remarks on the occasional, but rare occurrence of congenital atheromatous deposits in the valves, contained in a number of works of general character, viz. on diseases of children, pathological anatomy, etc., I find no special notice of the above mentioned nature in my library, nor in my notes.

Finally, allow me to say, that I believe your case to be well worthy of publication, both for its rare occurrence and generally interesting character, and that the profession will be pleased by the examination of this rare case, from your experience, just as much as

Your obedient servant and sincere friend,

A. JACOBI, M.D.

50 Amity street, Feb. 19, 1861.

CASE LVIII. *True Knots in the Cord.*—Catherine McGrath, aged 30, first labor, Dec. 4, 1852, Lying-in Asylum. Head presentation, second of Nœgelé, six hours in labor, male child, living.

The cord presented a true knot, which did not at all interfere with the circulation. I have since seen a case almost exactly similar in its details, and I have also been able to recognise the cause of a miscarriage, in the death of the foetus, from one of these knots drawn tight, and stopping the circulation. This foetus, with its funis, was seen by Dr. Gouley. It is surprising that these knots are not more frequent.

CASE LIX.—*Premature Birth—Pneumonia—Diphtheritic Exudation on Fauces—Recovery.*

Mary Kennedy—unmarried—sixteen years old—Irish—admitted to Bellevue, January 30, 1861. Drs. Fernandez and De Rosset, House Physicians, from whose memoranda the case is written. Robust, healthy-looking girl in the fifth month of pregnancy. Obligated to go to bed for fever; pain in right hypochondrium; slight rigors and short dry cough following exposure to cold; great lassitude. These symptoms have been coming on for three days. Face is now very much flushed; respiration rapid; pulse one hundred and thirty-two, and incompressible. The pain in the right hypochondrium is increased by pressure and percussion, and corresponds with the site where her father kicked her on discovering her pregnancy. Bronchial respiration and bronchophony are met with over right lung posteriorly; puerile respiration over left. Percussion dull over right lung posteriorly. Heart sounds normal. No foetal heart nor uterine souffle; maternal inspiration heard over the whole abdomen. Areola dark—milk; os uteri soft; foetal movements distinct. 4:30 P.M.—Dry cups to seat of pain; temporary relief. Pulv. ipecac et opii, gr. x.; bowels have moved. Jan. 31, 10½ A.M.—Considerable fever; pulse one hundred and twenty, and weak; respiration fifty-six, skin warm and dry; erythematous patches on each arm; whiskey. 4 P.M.—Bronchial breathing and crepitant rhonchus on forced inspiration in lower lobe of right lung; pulse one hundred and fifty; no sputa. 6¼ P.M.—Pulse one hundred and thirty, weak; respiration seventy. Seven wet cups to posterior portion of chest, and which drew about ¾vj. of blood; bowels have moved. 10¼ P.M.—Pulse one hundred and forty-four, weak; respiration labored, forty-eight to the minute. Feb. 1, 10 A.M.—Since six o'clock no pain in the side. Labor pains now coming on. Os about the size of a shilling and dilating. Presentation difficult of appreciation—very movable—probably the feet. Dr. Taylor and I saw the patient at this time, and with the view of favoring the dilatation of the os, as well as of relieving the respiratory symptoms, prescribed small doses of tartar emetic and belladonna. Pulse one hundred and forty-eight, full; respiration eighty-two. Some slight dullness over the left lung anteriorly. At 3:30 P.M., the patient was delivered of a non-viable female foetus in the fifth month, whose heart pulsated fully for half an hour at the rate of forty-eight to the minute. Dr. De Rosset arrived after the legs and breech had been expelled. He was also obliged to remove a portion of the placenta with the membranes. Pulse one hundred and forty-six; respiration seventy-two. 6 P.M.—Complains of sore throat; pulse one hundred and twenty-four, good; respiration sixty-seven. 10 P.M.—I saw her and removed more of the retained placenta, leaving still a portion near the fundus; uterus well contracted. Examination of throat shows diphtheritic exudation; pulse one hundred and twenty-four, quite weak; respiration sixty-four. Ordered the tartar emetic and belladonna to be discontinued, and the patient to have as much whiskey as she could drink, and ten gr. of the chlorate of potash every hour when awake. Feb. 1, 2 A.M.—Asleep, but easily aroused; respiration sixty-four; pulse one hundred and eighteen, so weak as scarcely to admit of counting. No hemorrhage; has taken ¾vj. of whiskey. Now ordered an ounce every half hour. 5 A.M.—Pulse one hundred and twenty, so weak as scarcely to be appreciable at the wrist. Respiration

fifty-two, with a sonorous rattle in the throat on expiration. General condition still more feeble; with difficulty aroused; answers incoherently. 9 A.M.—Pulse one hundred and twelve, very weak. Respiration sixty, labored; skin dry. Tongue dry, brown in centre, edges dry and red. Examination of fauces shows plastic exudation on both tonsils, and behind. Deep sonorous rhonchus during both acts of respiration; some dulness; crepitant rhonchus, bronchial breathing and bronchophony posteriorly over right lung. Signs better marked over right lung; short dry cough; feverish, averse to medicine and stimulants. Carbonate of ammonia. M.—Condition better; pulse one hundred, stronger; respiration sixty-four; more tranquil; tongue moist; asks for something to eat. 3 P.M.—Has complained and still complains of a returning pain in the right side; pulse one hundred and twelve, weaker; respiration fifty-six. 6 P.M.—Pain in side continues; pulse one hundred and twenty-one; better quality; respiration sixty; skin warm. Feb. 3, 2 A.M.—Pulse one hundred and twelve, stronger; respiration sixty. Takes about $\frac{3}{4}$ jss. of whiskey every hour at intervals of twenty minutes; seven and a half grains of carbonate of ammonia every hour; and five gr. of the chlorate of potash every half hour. 7.30 A.M.—Pulse one hundred and twenty; some calibres; respiration fifty-eight; more tranquil; pain has somewhat subsided; is more quiet and says that she feels better. 8 P.M.—Comfortable pulse, one hundred and twenty; respiration fifty-four; has eaten chicken, and is now asking for bread and milk. Feb. 4, 10 A.M.—Pulse one hundred and seventeen, good; respiration forty-eight; more tranquil; has the expression of convalescence; some more placenta came away to-day. Posteriorly slight mucous râles with exaggerated respiration. Anteriorly sonorous and sibilant râles. 6 P.M.—Pulse one hundred and twenty, good; respiration fifty-two. Feb. 12.—Has continued to improve; pulse ninety-six, soft; respiration twenty-six; appetite good; skin moist; slight fur on tongue; has lost the flushed face and anxious expression. Lochia good; small amount of milk. Her stimulants and medicines have been gradually diminished. She now only takes $\frac{3}{4}$ ij. of whiskey in the day. Percussion now normal everywhere excepting some slight comparative dulness over the right lung posteriorly. The râles have disappeared from the front of chest. Posteriorly and inferiorly on the right there is a fine crepitus not peripheral, audible with both acts of respiration; and over the whole lung a deep sonorous rhonchus in inspiration only. Over left lung the respiration is still somewhat purile. Fauces and throat healthy.

This patient was admitted under the care of Dr. T. G. Thomas, who diagnosed the pneumonia, and she came under my care when the labor set in.

SEVERE HEMORRHAGE FROM THE STOMACH

ARRESTED BY THE USE OF PERSULPHATE OF IRON.

BY ANDREW H. SMITH, M.D.,

OF BRISTOL, PA.

C. H., aged 42, boatman, was attacked on the morning of the 12th of April with vomiting, the material ejected being at first largely intermixed with blood and subsequently consisting almost entirely of fluid blood of an arterial hue. The amount of blood ejected before medical aid was obtained was stated by the attendants to be at least two quarts, though this is probably an exaggeration. Twenty drops of the muriated tincture of iron were administered by a druggist who was called in, but no favorable effect was observed. A physician arriving, oil of turpentine was given, and the patient was directed to swallow bits of ice. This had the effect of arresting the hemorrhage for a time, but after the expiration of a few hours it returned with the same severity as before. I was then called. On arriving I was shown a vessel containing about three pints of a material composed apparently almost entirely of blood,

and which had been ejected immediately before my arrival. On questioning the patient it appeared that he had for some time past suffered from slight pain and tenderness in the epigastric region. On examining the abdomen the spleen was found to be very much enlarged and of abnormal firmness, but the patient states that he has never suffered from intermittent fever. Full doses of acetate of lead and opium were given, and a bladder of ice and salt applied to the epigastrium, the patient to continue the use of ice internally. Sinapisms were also applied to the legs. By these means the hemorrhage was arrested for about twelve hours, when it again returned, notwithstanding the continued use of the remedies. Two grain doses of tannic acid were then given, by which the hemorrhage was controlled for a time, when this remedy also became ineffectual. The pulse having risen to 110, and become small and feeble, I decided to use the persulphate of iron, as recommended by Dr. Hallett, of Brooklyn. Gtt. xv. were given every hour and a half until three doses had been given, when the dose was gradually diminished and given at longer intervals. From the time the first dose was given no more hemorrhage occurred. No nutriment was allowed to be taken into the stomach for thirty-six hours, the patient being supported by nutritive and stimulating enemata. After this time farinaceous diet, in a fluid form, was cautiously administered, and at the time of writing (April 17th) the patient is rapidly recovering his strength, and unless fresh hemorrhage occurs, has every prospect of recovery.

Reports of Hospitals.

ST. LUKE'S HOSPITAL.

TUBERCULOUS DISEASE OF LUNGS, LARYNX, AND BRAIN.
SERVICE OF DR. HEYWARD.

[Reported by E. B. DALTON, M.D., Resident Physician.]

A MAN, 48 years of age, a printer by occupation, entered St. Luke's Hospital on the 9th of January, 1861, suffering from chronic laryngitis, which, from the history of the case, and from the fact that evidences of morbid deposit in the apex of the left lung were detected, was thought to be of a tuberculous character. The commencement of the difficulty dated some three months previously, but it had increased very much in severity during the past four weeks, so as almost completely to destroy the voice and to interfere very materially with deglutition. At the time of his admission, the inflammation extended over the fauces generally, which were covered with an exudation of mucus. The patient was put upon the use of tonics and a gargle of chlorate of potassa. The condition of the throat became steadily worse until, about ten days subsequently to his admission, the parts were found to be covered with a membrane of a diphtheritic character, while at the same time the patient became much enfeebled. More decided efforts were made to support the patient's strength, and a solution of argent. nitr. \mathfrak{D} ij., aquæ $\frac{3}{4}$ j., M., applied to the throat several times daily. No substantial improvement followed, and some five days later the liq. ferri persulphat. diluted with double the quantity of water was substituted as a local application with marked benefit. The patient soon experienced decidedly less difficulty in swallowing, and the voice began to return. About this time some slight incoherences of manner, which had once or twice before been remarked upon, became more noticeable, but as the patient was never confined to his bed, and was also partially deaf, but little attention was paid to these manifestations. During the night of Friday, the 9th of February, he had a chill of considerable severity, accompanied with pain in the left side of the chest. He rose, however, on Saturday morning, and conducted himself as usual through the day. On Sunday morning, while at the breakfast table, he exhibited symp-

toms of a very peculiar character, paying very little heed to what was going on about him, and appearing exceedingly drowsy. Somewhat suddenly his face became livid and he was removed to his bed, where he at once fell into a deep sleep, from which, however, he would suddenly start on being touched or loudly spoken to, and then almost immediately relapse. At the medical visit, signs of commencing pneumonia were found at the base of the left lung. The trouble in the throat had almost entirely passed away, and no membrane was visible. The somnolence and incoherence of manner rather increased. The supporting plan of treatment was persevered in, but with little or no amendment. The pneumonia made but little progress, but the symptoms referable to the brain became constantly more marked. The respiration was oppressed, the stupor more persistent, and the patient's manner and speech, when roused, wild and disconnected. The pulse rapidly flagged, and the skin became cold, until early on Tuesday morning he died, as if from exhaustion, in a condition of collapse.

The autopsy was made Tuesday P.M. Recent pneumonia was found at the base of the left lung, which was also the seat of considerable tuberculous deposit. The other organs, both in the chest and abdomen, were in a healthy condition. On the removal of the calvarium a large quantity of serous fluid was found beneath the arachnoid. The cerebral ventricles were subsequently seen to be distended with a similar effusion, and a still greater quantity was collected at the base and about the medulla oblongata.

American Medical Times.

SATURDAY, APRIL 27, 1861.

STATE MEDICINE.

THE signification of the term State Medicine, which some of our friends failed to comprehend at the last anniversary of the National Sanitary Convention, will doubtless soon be fully understood and intensely appreciated by the American people. Armies, outnumbering any that ever yet have met upon the western continent are at this moment, at a day's notice, rushing to the field of conflict. As unused to the march, the bivouac, and life in the camp, as they are unhardened to the din of battle or unacclimated to the malaria and heat of our southern states, these brave volunteers may be doomed to suffer dangers greater than they will encounter in actual combat of arms. Yet notwithstanding the chronic indifference to military hygiene which until very recently afflicted our own and other governments, our distracted country may now rejoice in the fact that the medical bureaux at Washington and in this city are fully awake to the importance of carefully protecting the troops from every preventible cause of disease and death. But the conflict upon which these troops are entering is one that will test the physical endurance and vital powers of the half million of hardy citizens who to-day stand ready to sacrifice their lives for their country. Neither our own nor any other nation has ever before so suddenly, and in such hosts, plunged into war. Hence we may anticipate for both armies certain inevitable results of hasty and insufficient preparation and provisioning, excited marches and engagements by volunteers, and the general inattention of military officers to the laws and conditions of health in the field and in camp. We know that the

Surgeons General and the Medical Directors of the federal army are using the utmost vigilance to guard against disease, and we trust that the Purveyors and Commissaries are doing all that can be so hastily done. We refer our readers to the orders promulgated by Dr. AGNEW, the Medical Director of the New York Division. He is leaving nothing undone which human energy and keen foresight can do. Let the profession heartily sustain and second his efforts, and let them cheerfully offer their best surgeons and their best services for their country.

But notwithstanding the admirable management and energy of the military bureaux of Medicine, whose officers are undoubtedly doing all in their power in the faithful discharge of their duty, we must solemnly protest against the preposterous standing policy that hitherto has provided only two, or at the most but three medical men for regiments of a thousand or more soldiers, and that never yet has supplied a competent ambulance corps, or a competent staff of dressers and hospital attendants. These defects must be promptly attended to, or thousands of precious lives will be needlessly lost before the impending conflicts are ended. So in regard to Military and Hospital Hygiene, not only the military bureaux, and surgeons now in the service, but the enlightened and patriotic members of the profession not called to the field, should devise suitable measures and put forth the most earnest endeavors to thoroughly indoctrinate the medical staff, and every candidate for the service, in the principles and practice of camp and hospital Hygiene. And it is not yet too late for the military officers, of all grades, to take practical instruction upon this subject. Voluntary and wisely directed efforts of our medical brethren may yet remedy many of the errors and deficiencies of the State authorities in military as well as in civil life.

The marked efficiency of the Army Medical Management stands out in striking contrast with the treatment of medical and sanitary questions by State Legislatures. We can conceive of nothing more humiliating and disgraceful to the State of New York than the perfidious betrayal of public responsibilities relating to life and health by legislators at Albany. Even an intelligent and uncorrupted majority in the recent Legislature were utterly foiled in their efforts to procure the enactment of much needed sanitary laws. By a conceited and bigoted chairman of a standing committee the Lunacy Commission Act was strangled; by the agency of a few bad men in the Assembly and its lobby the State was prevented from making any provision for adjusting the difficulties and providing for the exigencies of the Quarantine establishment; by similar agencies the Act for preventing the sale of adulterated and swill milk was prevented from passing the Senate; and, finally, the Metropolitan Health Bill, after a triumphant vindication of its claims by a noble majority in the Assembly, and after the most universal acknowledgment of its fitness and importance, was killed in the Senate by the "*crook of gold*" and the cupidity of men, who, during one brief term of public service, have amassed immense wealth. Thank Heaven, neither the festering corruption of States long enjoying and misusing the advantages of peaceful prosperity, nor the horrible disasters and carnage of civil war, will be long endured. The people are beginning to learn the vital importance and the inestimable value of wise legislation and good government.

THE WEEK.

MILITARY SURGERY, as a science, or a branch of study, is unknown to the medical profession of this country. The very term, indeed, so far as its practical application is considered, had become almost meaningless. Nearly half a century of profound peace with the nations of the earth, and perfect domestic tranquillity, has rendered the people of the United States entirely unfamiliar with war. Generation after generation have been so completely and uninterruptedly devoted to the peaceful arts, without the fear or even the rumor of war, that the term has become obsolete. Our military displays have been ridiculed as a mockery, and our military laws a dead letter. But a new era is about to open in our history, and it requires but little familiarity with the character of the American people, and the tendencies to sectional feeling, to foresee that, if inaugurated by war, it is to be essentially military. However the present controversy may end, military science will hereafter be more studied than at any previous period in our history.

We deem it fortunate that, with the commencement of preparations for war, we are able to lay before the medical profession a course of familiar lectures on military surgery. Prof. Hamilton, though practising only in a civil capacity, has devoted to this subject a degree of attention that must give his teachings the weight of an authority. They were originally prepared at the request of several surgeons of the Army, who expressed the opinion that such a course was needed in order to give, in a condensed and concise form, the principles of this branch of study, and the latest improvements which have been made. At this juncture such information is greatly in demand by the young surgeons who compose the medical staff of the volunteer army.

THE ACADEMY OF MEDICINE has laid out a large and well prepared field for its spring culture. The programme lately given in our Special Notices exhibits the best evidence of the vitality and working power of this central association. THE COUNTY MEDICAL SOCIETY of this city also is alive to the interests it was originally designed to promote. Dr. S. HANBURY SMITH's elaborate Essay upon the indications for the use of mineral waters was admirably adapted to awaken attention to some of the most important principles of Therapeutics. Its author is doing a most valuable service for the profession in his efforts to produce mineral waters in their highest perfection.

WITHIN the past week New York has been converted into a vast military camp. The preparations for war during this short period are incredible in extent and completeness. Every class, profession, and trade, is animated by one impulse, viz. effective preparation for the support of Government. The lawyers even have united to form a regiment. The medical profession contributes liberally to the appointments of the staff of officers of the several regiments. Among the prominent members of our profession who have already enlisted we may mention Prof. J. C. DALTON, Surgeon to the 7th Regiment, and Dr. J. W. S. GOWLEY, Surgeon to the First Regiment of Zouaves. Indeed, there is reason to fear that our hospitals and public charities will be deprived of many of their resident medical officers, so great is the anxiety to enlist. The Commissioners of Public Charities and Correction having consented to

reserve the places of the medical staff who might desire to enter the army, several have availed themselves of the opportunity and joined the volunteer regiments.

Elsewhere we have given as complete a list of the medical staffs of each regiment as we could obtain. We shall endeavor hereafter to keep the profession well informed of all that relates to the medical department of the regular and volunteer army.

ORDER FROM THE SURGEON GENERAL'S DEPARTMENT.

STATE OF NEW YORK, SURGEON GENERAL'S OFFICE, }
ALBANY, April 19, 1861.

General Orders, No. 1.

A commission for the examination of candidates for surgeons and surgeon mates, in accordance with an Act entitled "An act to authorize the embodying and equipment of a Volunteer Militia, and to provide for the public defence," will meet at the Surgeon General's office, at the Capitol, in the city of Albany, on Thursday and Friday, April 25 and 26, from 10 to 2 of each day. By order of the Commander-in-Chief,

S. OAKLEY VANDERPOEL, Surgeon General.

THERE has been much complaint at the tardiness of our State authorities in responding to the call of the President for volunteers. The Surgeon-General of the State, hitherto a mere nominal official, seems at last to have discovered that he, too, has a duty to perform in this emergency. Ten days after the proclamation, and more than a week after some regiments had started for the Capital, and when every day's delay involves consequences of fearful import to the country, a commission is appointed to sit one hundred and fifty miles distant from the seat of the chief recruiting station, for the examination of candidates for Surgeons and Surgeons' mates, in this volunteer army. Several regiments having selected their staff, are already on their way to the theatre of war, while many others are on the eve of departure with their medical staffs completed. At this juncture, when every moment is of infinite importance to the surgeon for the proper preparation of his medical equipments, he is summoned to a distant city, at the loss of a day or more, in order to meet the requisitions of a law so long a dead letter that it seems at first to have been overlooked. One of two things should have been done: either these examinations should have been delayed to some future period, as they certainly must in individual cases, or the commission should hold its session in New York City, the point to which converge all the volunteer companies of the State. Had this latter plan been adopted, these examinations might have been conducted without embarrassing, in the slightest degree, the necessary preparations of the Surgeons.

FLORENCE NIGHTINGALE, during the terrible period of the Crimean campaign, did not so effectually and so universally arouse the sympathies and activity of her English sisters as she has now by her example and practical instructions led thousands of American mothers and sisters in this city, even before the first battle, to engage systematically in labors for the relief of the brave men who have so suddenly rushed to the field of conflict. It may truly be said that never, since the crusades of the Middle Ages, has any people been inspired with such enthusiastic devotion of life and property to a holy cause; and never in the history of the world have women so universally offered themselves for their country's service. Not only have their instinctive and angelic sympathies led them beforehand to unite

in a hundred bands for systematic work in the preparation, collection, and forwarding of clothing, hospital dresses, and supplies for the sick and wounded, but with an unparalleled devotion to their country they with one voice and more than Spartan heroism bid sons, husbands, and fathers hasten to their country's defence, and then they offer hundreds of their best educated and choicest women to serve as nurses and hospital attendants wherever such services may be needed. More than one hundred ladies in this city have already offered themselves for this hazardous work. Efforts are being made for effecting a thorough organization and proper registration of suitable candidates for this service, and for their systematic and practical instruction and preparation in the art of nursing and hospital management. Would it not be well for the physicians throughout our Northern and Eastern States to advise lady candidates for army nursing to connect themselves with the central organization in New York? And let us all advise that no lady under twenty-two years of age, and none who are not possessed of the proper physical, mental, and moral qualities, be in any case recommended as candidates.

On the last page of this journal will be seen a special notice relating to the selection and preparation of nurses.

DR. C. R. AGNEW, of this city, late Surgeon General of the State Forces, has received from Surgeon General Vanderpoel and Governor Morgan the responsible appointment of MEDICAL DIRECTOR for the New York Division of the Army. This was an appointment fit to be made, and Dr. AGNEW is engaged night and day in examining the qualifications of candidates for Army medical service, and in preparing for the anticipated exigencies of military hospital service both at home and in camp.

THE following are the Army Regulations of the Medical Department in the State of New York.

THE MEDICAL DEPARTMENT.

§ 1.—*The health and lives of the officers and soldiers are too important to be committed to those unskilled in their profession. In the appointment or promotion, therefore, of any person in the Medical Staff, the appointing power will rigidly scan the pretensions of such person, taking into consideration his physical qualifications and moral habits, as well as his professional acquirements and education.*

§ 2.—*The Surgeon General is charged with the administrative details of the Medical department, and general oversight and charge of all officers belonging to it; and will issue the necessary instructions, from time to time, relating to their professional duties.*

§ 3.—*He may also require, from time to time, reports from Medical Directors, surgeons of divisions, brigades, and regiments, relative to the condition of the forces in service under their charge, with such remarks as may be necessary to explain the nature of the disease or the injury claiming their attention, and the probable cause thereof, and the treatment adopted.*

§ 4, 5, 6, 7.—*The Medical Director will inspect the Hospitals under his charge, ascertain the manner in which each subordinate performs his duty, see that the necessary supplies are provided for the sick, that they are of good quality and properly expended, and enforce the rules and regulations given for the government and direction of the Surgeons and Assistant Surgeons.*

§ 8, 9.—*The Surgeons of regiments will obey the instructions of the Medical Director, be responsible for the order*

and neatness of the hospital, for the manner in which the Assistant Surgeon and attendants perform their respective duties, and for the comfort and convenience of those sick in quarters.

§ 10.—*They will receive written morning reports of any who are sick, from the Orderly Sergeant of each company, who will see that those reported present themselves at the place appointed by the Surgeon, and be present himself at their examination.*

§ 11.—*They will immediately report all cases of feigned sickness to the Commanding Officers of companies, prescribe for those who are able to remain in quarters, and send those whose cases may require other accommodations where the same may be obtained.*

§ 12.—*They will at all times be within call in all cases of accident, and have the necessary medicines, instruments, and dressings ready at hand to attend to the sick and wounded.*

The remaining sections of these Regulations will be given in a future number.

THE enlistment of DR. S. BURNETT TUTTILL, as Surgeon to the reinforcement of the Seventh Regiment, forcibly illustrates the spirit of the Medical profession, and of every citizen. He was waked at an early hour in the morning by a messenger from the officers of the regiment, requesting his enlistment and immediate presence in their ranks. He instantly, and without previous reflection, obeyed the summons, and departed immediately to the seat of war.

DR. ALEXANDER B. MOTT, of this city, has been appointed Medical Inspector of the N. Y. State Volunteers, at the New York City Depot; an appointment of vast responsibility and importance.

DISEASE OF THE HEART IN CHILDREN.—Dr. William Moore gives the following statement of the frequency of diseases of the heart in early life:—"Of 2,584 children treated at the Manchester Clinical Hospital, diseases of the heart and circulation occurred in sixteen. Among 411 patients treated in the Hospital for Sick Children, Great Ormond Street, London, only four, three females and one male, two under, and two above ten years, suffered from diseases of the heart; and of 9,867 cases, as externs, thirty-three instances of cardiac disease were observed, of which thirteen were females, and twenty males; three above, thirty under eleven years of age. Of 3,500 cases treated at the Institution for Diseases of Children, Pitt Street, there were only eight cases of chronic cardiac disease observed (congenital malformations excepted), four of which were females, and four were males, the females aged respectively five, seven, and fourteen years; the males six, eight, eleven, and fifteen years."

NEW METHODS OF CURING CATARACT.—Mr. TRAVIGNOT, in a communication to the Academy of Sciences, proposes to cure cataract by puncturing the cornea at two opposite points of its circumference by needles, one of which is attached to the positive, and the other to the negative pole of a galvanic battery. The two needles are approximated on the surface of the anterior capsule, and brought to a white heat by means of the battery. The capsule is thus destroyed, and by a little manipulation, says Mr. T., the whole of the opaque lens can be charred and broken up.

This discreet proposition is rivalled by that of Dr. LANGENBECK, of Hanover, who has recently recommended what he calls *isolation* for the cure of cataract. This consists in the application of the concentrated rays of the sun to the lens, which is done by directing the focus of a burning-glass into the eye for several minutes, so that it falls exactly on the opaque lens. He repeats this operation three times within a quarter of an hour. He boasts of having cured nine cases by this plan.—*Amer. Jour. of Medical Science.*

Reports of Societies.

ACADEMY OF MEDICINE.

STATED MEETING, April 8, 1861.

JAMES ANDERSON, M.D., PRESIDENT, IN THE CHAIR.

THE ALKALOID OF CIMICIFUGA RACEMOSA.

DR. SAMUEL R. PERCY announced that he had extracted an alkaloid principle from the root of the *cimicifuga racemosa*, *aetia racemosa*, *macrotys racemosa*, black snake root, black cohosh. He gave the name *cimicifugia* to the new alkaloid, and remarked as follows: The use of this root has been much revived of late by the successful results of some cases reported by Professor Simpson. A mere qualitative analysis only has been made of the root, but no quantitative examination has as yet been undertaken. Mr. Tighlman, of Philadelphia, states the results of his analysis to be—Gum, starch, sugar, wax, fatty matter, tannic acid, gallic acid, black coloring matter, green coloring matter, lignin, salts of potassium, calcium, magnesium, iron. I have endeavored to ascertain if it contained an alkaloid, and for this purpose treated a quantity of the root; but the results, owing to imperfect implements, were quite unsatisfactory. I, however, obtained a quantity of the freshly made macrotin, prepared by B. Keitt & Co., and from this have isolated a small amount of alkaloid principle. I separated it from the other precipitates by benzole—a suggestion to which I am indebted to George J. Scattergood, of Philadelphia, who called my attention to it as the easiest way by which he separated the alkaloid veratria from *veratrum viride*. The amount that I have prepared is as yet very small, amounting to less than three grains, but still it is sufficient to demonstrate the fact that the plant contains an alkaloid. I have not yet purified it; it is of a dark brown color, and therefore impure. Its physiological action I have not yet tried.

DISCUSSION ON THE TREATMENT OF MORBUS COXARIUS.

DR. ALFRED C. POST, in accordance with a request previously made, opened the discussion and remarked as follows:

I will occupy the time of the Academy but very briefly in speaking of the subject, to which our attention has been very prominently directed of late. *Morbus coxarius* is a disease which in some respects is well known to the medical profession; a disease of very frequent occurrence, and yet one which has in some very important respects been very much misunderstood; and it requires a large amount of investigation yet to make the members of our profession fully acquainted with all its characters. It is a disease, as is well known, which occurs for the most part in the earlier periods of life, at any time from the first dentition to the close of the period of adolescence; but it is comparatively rare in adult life. The disease involves the different parts of the hip-joint, especially the head of the *os femoris* and the *acetabulum*, sometimes extending to other parts somewhat remote from those primarily involved.

The pathology of the disease in its earliest stage is not well understood, for the reason that the case seldom proves fatal at that time; we are consequently to some extent obliged to conjecture upon the parts involved at this period. It has been supposed by some pathologists that the original cause of the disease was a deposition of tuberculous matter in the spongy tissue of the head of the femur and *acetabulum*. Some writers have gone so far as to represent that as the almost uniform condition. Others have regarded it as a disease of the synovial membrane and the articular cartilages. In the advanced stages of the disease, when the parts can be inspected in a post-mortem examination, we at all events find all the parts concerned in the articulation involved in the disease. It does not seem probable that in most cases the synovial membrane is primarily the seat of the disease, because we find that in other joints,

which are more superficial, and where the characters of the synovial membrane can be more distinctly recognised, a large effusion of fluid in the cavity of the joint is characteristic of the early stage of the malady. Again, we know in *morbus coxarius* that there is a period, sometimes of considerable duration, which precedes any remarkable effusion of fluid into the joint. Taking into consideration the age in which the disease usually occurs, the symptoms of the disease, and its further progress, I am inclined to think that in most cases the spongy tissue of the bones is the primary seat of the disease; although I believe that the disease may commence in other parts.

The disease presents itself, as is already understood, in three stages.

In the *first stage* we have a certain degree of lameness, attended with more or less pain, which is usually referred, not to the hip but to the knee. This pain varies greatly in different cases; in some it is slight, while in others it is very severe. In this early stage of the disease, which may be protracted to a considerable period, there is no deformity, no swelling, nor any visible change in the region of the hip-joint; nothing but the lameness and pain, which latter symptom occurs more frequently during the night than the day. We find also that even when no pain is complained of in the hip, but in the knee, the latter joint is not impaired in its motion. This, however, is not the case with the hip-joint, and furthermore the motion and pressure over the trochanter are not produced without pain. After it has continued in this stage a longer or shorter time, marked deformity occurs, characterizing the *second stage*, which is attended with effusion into the cavity of the joint, it may be synovial fluid, lymph, or pus. The pain, for the most part, is greatly aggravated, the limb is deformed, and its movements much impaired. The deformity which takes place consists in *apparent* elongation of the limb, owing to the twisting of the pelvis, which is done to accommodate the patient. On measurement of the two limbs there is little, if any, difference in the length. The limb is abducted as well as elongated. The joint seems often in this stage to be ankylosed; the rigidity, however, is the result simply of muscular contraction. The division of the muscles which surround the hip-joint, or the evacuation of the fluid contained in the capsule, will remove this rigidity, which seems to constitute the ankylosis. *Third stage*.—After the disease has passed this stage, if relief be not otherwise afforded, and the fluid either spontaneously or by art evacuated, the disease then reaches its third stage, in which there is another kind of deformity produced, differing in a very striking manner from that in the second stage. We find that the limb is shortened and inverted, instead of being elongated and abducted. We find the limb thrown in the same position as is seen in dislocation of the femur upon the *dorsum illi*. This change in the position of the limb, which attends the escape of the fluid from the joint, as is easily seen, is very apt to take place suddenly by an equally sudden outlet, and in many cases actual dislocation is supposed to have occurred. Nearly all the standard authors on surgery have spoken of dislocation as being one of the more common results of *morbus coxarius* reaching its third stage. Dr. March, of Albany, was the first to investigate this subject fully, and he has shown, by a very extended series of observations, that true dislocation, occurring as the result of *morbus coxarius*, is a very rare affection, and that it scarcely ever occurs. There is a sort of quasi-dislocation which does occur in a considerable number of cases. The *acetabulum* itself becomes increased in size; it extends itself upon the *dorsum of the ilium*, so that you have a very large articular cavity, and the head of the femur slips out of its original situation into this pouch; the whole being within the capsular ligament. The signs of this latter position are strikingly like those of true dislocation. In some of these cases where the head of the bone has undergone remarkable changes from caries, being altered in volume and shape, and when it is actually separated from the shaft, a great degree of shortening is apt to take place.

I will not dwell longer upon the pathology of this disease, but will go to the particular subject appointed for discussion this evening—the *treatment* of morbus coxarius. I have very little to say of the constitutional treatment. This is a subject which has largely engaged the attention of surgeons for many years. I will merely say, however, that whatever the constitutional treatment is, it must be adapted to the patient's state at the time. There is, in fact, no general rule to be laid down in this respect. In some cases a certain amount of local depletion is well borne, and mercurial and other cathartics are administered with benefit. In the advanced stages, however, we find the patient greatly reduced, requiring tonics, stimulants, and all the hygienic means at our command for increasing the constitutional vigor. Counter-irritants have been used to a large extent in the treatment of this disease; and while their efficacy has been highly extolled by some, they have been, at the same time, by others represented as useless, in fact as productive of harm. I think I have seen beneficial effects produced by the use of these means. I am not disposed, however, to attach much importance to that class of remedies, because I believe we have a more beautiful and satisfactory system of treatment in the shape of mechanical appliances.

I propose, then, to speak more particularly at the present time of the *mechanical treatment* of morbus coxarius. In looking over the standard works of surgery, of which I have consulted a considerable number, I find that nearly all the authors of these works ignore any mechanical treatment, except that which is designed to secure rest and immobility of the affected joint, and in certain cases of the disease in an advanced stage, to overcome deformity. Beyond this, scarcely anything is said until a very recent period. Nearly all the writers which I have consulted speak of the great importance of keeping the patient for a long time in the recumbent posture, with the joint and whole body in absolute repose. Dr. Gross, in his work on surgery, which has been published within a short time, ignores all that has been said with regard to mechanical treatment by extension and counter-extension, and speaks of the necessity of rest of the joint as a matter about which there should be no compromise between the patient and surgeon. Of course he attends to the constitutional treatment; but *absolute repose* he strenuously insists upon as constituting the treatment for this disease. Dr. Physiek and those who have followed him have relied so entirely upon absolute immobility of the joint, the patient being maintained for a long time in a recumbent posture, that they have recommended carved splints to be adapted to the limb in its crooked and deformed position—*rest* being the object, and the only object, at which they aim.

The first intimation that I have seen of extension and counter-extension being resorted to as a curative means in morbus coxarius, was in a paper by Dr. William Harris of Philadelphia, which was published in one of the journals of that city in 1839; in which he speaks as having resorted to this practice as far back as in 1835. He records in that paper four cases of morbus coxarius, in three of which he resorted to extension; in two by such an apparatus as is used in the treatment of fractures of the thigh when in the straight position. These cases were all of great severity, and one in particular was regarded as utterly hopeless by some of the most eminent surgeons of Philadelphia. The child was four years of age, and was treated by Hagadorn's splint; and after a year was restored to an apparent state of health.

This treatment seems to have fallen very much into disuse, and we find little said of mechanical extension and counter-extension, as a means of curing morbus coxarius, after the publication of this paper, until after the lapse of a considerable number of years.

In 1835, Dr. March, of Albany, published a paper in the *Trans. Amer. Med. Assoc.* in which he spoke of the advantages of the plan of extension for the purpose of overcoming the deformity which had been produced by morbus coxarius,

and afterwards keeping the limb extended by the application of the straight splint. His plan was to bring the patient under the influence of chloroform, then to make extension to remove deformity, to bring the limb in its proper place, and there secure it. He does not seem, if I rightly understand the paper, to recommend mechanical extension and counter-extension as a means of treatment until *deformity* has occurred; and he employs it only as a means of *overcoming* that deformity.

In the same year Dr. Bauer of Brooklyn published a paper in the *New York Journal of Medicine*, in which he speaks of the treatment of morbus coxarius by *extension*, and he is the first writer after Dr. Harris, as far as I am informed, who speaks of the beneficial effects of extension in other respects than in removing deformity. He speaks distinctly of the beneficial effects of extension in relieving pain, and in controlling the disease. His extension was made by an apparatus which required the patient to be confined to his bed, and, after a certain progress in the ease, he applied the "wire breeches" contrived by Bonnet of Lyons, which enabled the patient to be carried out in the open air.

As long ago as 1850, Sir Benj. Brodie spoke of a means of treating morbus coxarius in an advanced stage, when shortening had taken place, by means of a cord attached to a band passing around the lower part of the thigh above the condyles. This passed over a pulley at the foot of the bed, and had a weight attached to it for the purpose of keeping up continuous extension. This is the first instance of the application of what Dr. Davis calls *elastic extension* in the treatment of this disease. It is a principle, however, that has been known in the treatment of other diseases than the one under consideration, previous to this time. This mode of treatment differs, as can easily be seen, from the inelastic force which is applied to the limb when the ordinary straight splint is used. Brodie did not recommend this as a mode of treatment adapted to the disease in its different stages, or as the ordinary mode of treatment, but as a means of overcoming deformity; that which consists in shortening in its third stage. He spoke of it as a remedy of some value, but one which had disappointed him in most cases. Sir Benj. Brodie of course was not acquainted at that time with the mode of applying force in the extension of the limbs which has since been introduced by the use of adhesive plaster, which has proved itself so much superior to all other methods. All other methods for making extension are very faulty compared with this, and I have very little doubt that the obstacles which Brodie encountered were in consequence of the want of means.

During the last year a paper appeared in the *American Medical Monthly*, by Dr. H. G. Davis, giving an account of a method of treating morbus coxarius, which he had been in the habit of using for several years past, and his method is undoubtedly a very great improvement upon all others which have preceded it. We have, in the method described by Dr. Davis, the first intimation of extension being carried out in the treatment of this disease, *through all its stages*, in a manner which was calculated to relieve the sufferings of the patient, to arrest the progress of the disease, and at the same time to allow active exercise in the open air. The method recommended by him consisted in the application, in the first instance, of the weight attached to the cord over the pulley, secured to the limb by adhesive plaster (an improvement in that respect to Brodie's plan), and instead of using it to prevent deformity simply, he employs it for taking off the pressure in all the stages of the disease. When the limb has been extended, and the disposition to muscular contraction has been overcome by being subjected to this treatment a longer or a shorter time, Dr. Davis applies a steel splint, adapted to the outer side of the limb, at the upper extremity of which counter-extension is made by means of two bands, one of which is elastic, and the other non-elastic, the former to yield to pressure while the latter limits the extent of stretching. At the lower extremity of this corrugated steel splint an

extending band of adhesive plaster is attached in such a manner that active extension can be made upon it by means of a strap that passes over the end of the splint, and is inserted into a buckle on its outside. There is no question, Mr. President, that Dr. Davis is entitled to the credit of having introduced this method of treatment to the profession. It is true, at different periods, some one of these means has been employed by different surgeons; extension and counter-extension have been known; even the elastic extension has been applied by Brodie, but the methodical application of the treatment is due to Dr. Davis, and were it not for him the profession would have known nothing about it.

Since it was introduced there have been some other modifications, some useful modifications of the instrument introduced by Dr. Sayre, who has made an extensive trial of this method of treatment, and who has rendered it by such modification more convenient of application, if not more efficient in its action.

There are several modifications by Dr. Davis. He has introduced another form of the instrument, in which the extension is made from above the knee, so as to obviate any traction upon the knee-joint, and to prevent that rigidity which often takes place in consequence of it. This method will probably answer in cases where there is sufficient length of limb to allow the straps to draw with sufficient force to produce extension. In very short limbs I am inclined to think that it will not succeed, and that the longer splint will be more efficacious. Dr. Davis has also modified his original instrument by introducing a mode of extension that is perhaps similar to that which has been introduced by Dr. Sayre, by turning with a key—the original method of extension, it will be remembered, is by means of a joint in the middle of the splint—the instrument applied in the flexed position when extension is made by straightening it out and slipping the slide over it.

I would observe that there is some obstacle to the free application of a contrivance of this kind upon poor patients, growing out of the expense of the instrument. A modification may be used which will obviate this objection to a great extent. A recent graduate of the University Medical College, Dr. Oleott, of Williamsburg, has made a wooden splint which is adapted to the outer side of the thigh, and extension is made by tightening a strap at its lower end. I saw but once the application of this wooden instrument, and the child to whom it was applied was able to walk about with much more ease than before its application.

Correspondence.

DANGEROUS IMPURITY OF CITRATE OF IRON.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—Believing that the following case, which lately came under my observation, should be made known to the profession, in order that the fatal consequences that might result therefrom may be guarded against, permit me to publish it through your columns. The manner in which I propose treating the subject may appear rather prolix, but so many and so various questions have been addressed to me by those to whom it has been mentioned, that I think it well to give all the steps by which I arrived at my conclusion, that every physician and apothecary who wishes may examine for himself.

Having occasion to put up a prescription, in which the ammoniated citrate of iron and iodide of potassium were combined, I was surprised to find a yellow precipitate immediately formed. Fearing that I had committed an error, the prescription was again compounded, but with no better success. From this I concluded that some of the ingredients used must be impure, and suspected the iodide

of potassium, it being a new sample, and different from what I had been previously using. Another sample, similar to what I had been accustomed to, was procured, and the prescription again prepared. The precipitate again appeared, though not quite as copiously as before. The first specimen of iodide of potassium was then examined, and showed the presence of a minute quantity of iodate of potassa, giving a bluish tint *immediately* on the addition of a weak acid. This was the only impurity found, and was not sufficient to account for the reaction observed, though it might for the more copious precipitate noticed in the first case, that precipitate being probably a mixture of the iodate of iron with the precipitate, from the impurity now to be noticed.

The citrate of iron was then examined, and gave the following results: 1. The yellow precipitate, already noticed with iodide of potassium, which was found to be soluble in hydrochloric acid, and a solution of caustic potash. 2. With sulphuric acid it gave a white precipitate, soluble in hydrochloric acid and caustic potash. 3. The solution of the last precipitate in caustic potash gave a black precipitate with sulphuretted hydrogen. 4. Bichromate of potassa gave a yellow precipitate, soluble in caustic potash, hydrochloric and nitric acids.

These reactions point conclusively to lead as the impurity present. Being satisfied upon that point, I next proceeded to ascertain in what quantity this impurity existed, and decided upon the sulphate as the best salt of lead, by which to estimate the amount. One hundred grains of the citrate of iron were dissolved, and a precipitate procured with sulphuric acid. The result was so surprising, that I consider it necessary to state what precautions I took to arrive at a correct conclusion. The acid was chemically pure, being tested before being used, was largely diluted and added with the greatest care, so as to get exactly the right quantity. The precipitate from the above quantity weighed (the drying and weighing being repeated several times, to test its correctness) $13\frac{86}{100}$ grains.

Now, presuming that the condition in which this lead existed in its combination, or perhaps, more correctly, admixture with the salt of iron (for I must confess myself not sufficient of an adept to decide whether this should be considered as a bi-basic salt, a citrate of the oxides of iron and of lead, or a mixture of the two salts) was that of the citrate, a salt of lead of which I cannot recollect having ever seen any account, the calculation must be based upon the estimated equivalent of that salt, thus:

The equivalent of citrate of lead being . . . 276.6

“ “ sulphate “ “ . . . 151.6

and the weight of precipitate “ “ . . . 13.86

we get thus $151.6 : 276.6 :: 13.86 : 25.25$; the almost incredible proportion of $25\frac{1}{4}$ per cent. of citrate of lead in this so-called “ammonia citrate of iron.” Having thus carried my examination as far as was practically necessary, I reduced the sulphate to the metallic form, more as a matter of amusement than for the purpose of making “assurance doubly sure.” From the above data, it will be seen that a physician ordering a patient five-grain doses of this citrate of iron three times a day, would have administered, in one fortnight, over sixty grains of citrate of lead. Comment is needless. That there is a considerable quantity of this now scattered over the country, I have no doubt; for having used up the small quantity I kept to experiment on, I sent, some two weeks subsequently, for some more of the same brand, in hopes of getting some of the same lot to keep as a specimen, and obtained some by the same manufacturer, though not of the same batch, it being much less soluble than the first; it also responded to the foregoing tests. From this it is evident that two batches, at least, have been thrown into market. As the tests above given are all exceedingly simple, and not expensive, every physician or druggist should examine what he may have on hand, or what he may buy for the future. The *drug* presents no unusual appearance, by which the impurity might be suspected. Now, to account

for this most dangerous adulteration is a matter of considerable interest. Intentional fraud can scarcely be suspected, since the relative value of the two metals would offer no inducement for such a sophistication. It is more probable that it resulted from the use of an impure sulphate of iron, as the source from whence the citrate was made. But how any manufacturing chemist could make use of such an impure article, as this view of the matter would presuppose, and be ignorant of that impurity, is a little surprising. Such ignorance of one's profession could scarcely be credited, and in a profession where life or death is so often involved, would be no less culpable than the fraudulent substitution of that very poisonous substance, lead, for the efficient remedy, iron. But, to decide the question of how this occurred could be better done by the manufacturer than by
Yours, etc.,

W. M. LALOR.

941 BROADWAY, April, 1861.

PROFUSE SALIVATION FROM APPLICATION OF MERCURIAL OINTMENT TO FACE IN CONFLUENT SMALL-POX.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I wish to take this opportunity of reciting the following case in order to guard many of my professional brethren against a like result. I was called to attend a young woman at 361 Cherry street, on Feb. 15th, 1861. When I saw her the eruption was beginning to appear, and sufficient to show that she was about to have a severe attack of confluent small-pox. Having read in medical journals that mercurial ointment would prevent pitting, I ordered some to be applied to the face once daily from the second day of the eruption to the ninth. The fever ran high to the tenth or eleventh day, when it subsided a great deal. The scales formed in thick crusts, and she seemed to improve very quickly until the fifteenth day, when a most violent salivation set in. Tongue swelled and almost protruded, great difficulty in swallowing, and marked prostration. She, however, contrived to swallow some beef-tea, milk-punch, and three drams of chlorate of potash dissolved in a half pint of water daily; a leech was also applied to the angle of each jaw. By these means she fortunately recovered; she is this day, March 18, sitting up. I will not use the mercurial ointment again, particularly as the physician will obtain as much good from the application of other unctuous substances, as sweet oil, hog's lard, or fresh butter; these I have employed before, and they did as well as the ungt. hydr., for notwithstanding its application the woman will be pitted on the face. If this salivation had taken place in a child under ten years, I am satisfied that death would have ensued, because sufficient nutriment could not be given. This patient, on being told that her life depended on the quantity of nourishment taken, contrived to swallow a great deal of it, but with great pain and difficulty. Yours truly,

JOHN BURKE, M.D.

April 20, 1861.

REMEDY FOR HICCOUGH.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—Having been called to attend a patient last week, then suffering from severe and continued hiccough, for which several remedies had been prescribed without effect, I ordered magisterium bismuthi, the French "Blanc de fard," on account of its anti-spasmodic effect in nervous affections, in the following manner: R. Magisterii bismuthi, grs. iij., pulv. radieis ipecacuanhae, gr. iss., sacchar. alb. ℥j., misc. fiat pulvis. Take one powder every three hours. The following day I had the pleasure of finding that the hiccough had entirely ceased. A physician is rarely called on in cases of hiccough, but it may be perhaps interesting to your

readers to know the effect of said remedy, which effect I have witnessed once before in Philadelphia in a similar case.

Yours, &c.

D. J. LYSER, M.D.

BROOKLYN, April 22, 1861.

TITILLOPATHY.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—A few years since a medical practitioner of our city acquired a celebrity for the treatment of a class of diseases peculiar to females. As his system was then unknown to others, patients came from afar, and with them came the golden opinions the doctor sought for, until in an evil hour the charm of secrecy was broken, and the doctor's occupation gone.

As his system was unlike all the other isms and pathies of the day, and being recognised as an *applied* science, it properly has been termed *TITILLOPATHY*, or the science of manipulation. The following case will serve briefly to elucidate its practice. To the suffering patient, after feeling the pulse, and receiving answers to the usual questions of the head, stomach, and bowels, the doctor would say—"Your case is a very simple one; you need none of the nauseous medicines with which your former doctor has gorged you—nothing but a gentle manipulation of the *clitorium*, and nature will resume her sway." Then placing the patient in a convenient position, with the index finger he dispelled the pain. The reader can anticipate the pernicious habits thus inaugurated by acts under the cloak of medical treatment.

But my purpose is more particularly to call attention to a present medical practice. And I am led to inquire of my brethren, through the medium of your journal, if the custom of prescribing smashes, juleps, and cocktails, under the guise of schnapps and elixirs, does not savor strongly of Titilopathy? Human nature is titillable through the palate and the imagination, as well as the *clitorium*, and I am convinced that to the palatable practice of Titilopathy may oftentimes be traced the morbid and uncontrollable desire for stimulants, with its fatal results, when the primary cause may only be known to the practitioner of this art.

My thoughts have been especially drawn to this subject by an incidental conversation with a neighboring apothecary, who in reply to the usual query, "Any new remedies?" "Oh, yes," said he, "and those that are likely to have a permanent hold upon the people, they are so palatable. The doctors who prescribe them have a rapidly increasing practice, and quite throw the Homœopaths into the shade, whose pellets are pronounced to be tasteless stuff as compared with the delightful elixirs of modern practice. They take wonderfully," said he, "with my customers. One lady received a prescription from her physician for a quantity to be taken in eight days. She returned in four days afterwards to order a pint of it, remarking that she found it to be also invigorating to her children; but she did not believe in the doctor's teaspoonful doses three times a day, for she now took it with decided benefit by the tablespoonful, as often as she felt a drooping sensation, and the children positively liked it." At my request the apothecary furnished me with the following formulæ for a few of the most popular new remedies:—

To form the basis for either of the elixirs—Take of brandy, sugar, and water, in proportions, to make a pleasant beverage: then it may be calisayed, peruvianated, tonicated, ferrated, ferruginated, ferro-phosphorated, chalybeated, caleiferated, or alkalinated, by quinine, iron, lime, potassa or soda, taking care not to add sufficient of either to impair the pleasant taste of the elixir, otherwise it may not agree with the stomach of the patient.

Now, sirs, so far as the quantity administered of any of these agencies is concerned, is not the practice Titilopathy? It may be argued, and as readily admitted, that patients of a nervous temperament are often relieved by a titilation of

their imaginations; and without doubt these elixirs, minus the brandy, are well adapted for that purpose, as in equal quantities they will neither do harm by overdose nor entail fatal habits upon those who take them.

It is certainly desirable that medicine shall be presented to the sick in the most agreeable and palatable form that is consistent with its true purpose; but when the dose is made entirely subservient to the taste, Allopathy must certainly give way to Homœopathy and Titilopathy.

MEDICUS.

BROOKLYN, April, 1861.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

January 14th.—Mr. Syme exhibited to the class a case of double talipes equinus, congenital, child about two years of age. Both Achilles tendons were divided, the feet at once brought up to their proper position, and a rectangular anterior splint bound upon each limb. A case of double talipes varus was next brought in, and Mr. Syme divided first the tendon achillis and then the tibialis anticus, tibialis posticus, and flexor longus pollicis; dividing the two last just anterior to the malleolus so as to avoid the posterior tibial artery. A case of tumor in the lower jaw was next shown, solid, not malignant, but incurable except by operation, and slowly growing. By careful examination it was ascertained to be growing from the jaw-bone and not from the alveolus. In connexion with this case Mr. Syme mentioned the case of a young lady from whose lower jaw he removed a similar growth. Although he supposed he had removed all materies morbi, it returned. He again removed it, and it again returned, and it was not until he had disarticulated and removed one whole side of the lower jaw that the disease was permanently arrested. Thus a guarded prognosis must be given in these cases. He would make incisions along the base of the jaw, and avoid cutting through the lip. A man 48 years old was shown with disease of the knee-joint which had existed since he was 13 years of age. There was first necrosis of femur and extension of dead bone; then inflammation and thickening about the joint occurred, with discharge as from caries. After some time, however, discharge ceased, and sore healed up, and he was able to use the limb moderately for many years; but about six months, in consequence of a fall, the fistulous opening resumed discharging, and the knee became utterly useless and intolerably painful. Mr. Syme stated that if the discharge from the caries had remained from the first, and the chronic disease had continued for years without any intermission, he would not advise amputation, because his experience had taught him that a fatal result almost invariably followed under such circumstances. When, however, there was a distinct intermission in the disease, and a cessation of discharge, as in the case under notice, operation was legitimate. Indeed, he recently practised amputation in a similar case, complete recovery following.

Prof. Simpson lectured to-day upon polypi of the uterus. In remarking upon their differential diagnosis, he said that it was often very difficult for one to give the exact steps by which he arrived at a correct conclusion. It was important for the student to enter upon the investigation of a case with *good common sense*, remembering that his endeavor should and must be to ascertain upon the living what would be surely ascertained upon the dead.

The lecturer upon operative surgery to-day, in showing us the various amputations upon the cadaver, said that before the days of chloroform a surgeon, now retired, while amputating a leg in the Royal Infirmary, in fashioning the posterior flap, ran his knife between instead of behind the tibia and fibula, and wedging it there, irritated the patient so much, both mentally and corporeally, by his mal-adroitness, as to cause a perfect shower of objurgations and *cur-sory* remarks, more emphatic than pleasant.

January 15th.—Prof. Simpson gave the following table of measurements, affording warrant for the various methods of delivery:

Forceps,	3 $\frac{1}{4}$ inches conjugate diameter.
Embryulicia,	1 $\frac{3}{4}$ to 3 $\frac{1}{4}$ " "
Cæsarian section, . .	1 $\frac{3}{4}$ " "
Premature labor, . .	2 $\frac{1}{4}$ to 3 $\frac{1}{2}$ " "

Dr. Keiller gave an excellent lecture upon diseases of women. He mentioned two cases in his wards where premature labor had been induced; in one, in consequence of paralysis, in the other of phthisis, because great dyspnoea supervened. In each case labor was readily brought on by two introductions of the finger, and the peeling up of the membranes.

Medical News.

ARMY MEDICAL INTELLIGENCE.

The following are the medical officers of the volunteer regiments summoned to the aid of the United States Government:—

MASSACHUSETTS.—Eighth Regiment—Surgeon, Norman Smith; Assistant Surgeon, ———. Rifle Battalion—Surgeon, ———.

RHODE ISLAND.—First Regiment—Surgeon, Wheaton; Assistant Surgeons, Rivers and Carr.

NEW YORK.—Seventh Regiment—Surgeon, T. M. Cheeseman; Surgeon's Mate, J. C. Dalton, Jr.

Seventy-first Regiment—Surgeon, ———; Assistant Surgeon, John P. Dodge.

Twelfth Regiment—Surgeon, A. Henry Thurston; Surgeon's Mate, R. F. Weir.

United States National Guard, First Regiment New York Zouaves—Surgeon, C. A. De Williers; Surgeon's Mate, J. W. S. Gouley.

Sixth Regiment—Surgeon, William J. McDermott; Surgeon's Mate, Samuel J. Vandersmith.

Sixty-ninth Regiment—Surgeon, Robert Johnson; Assistant Surgeons, J. F. Kiernan, Patrick Nolan.

Eighth Regiment—Surgeon, Foster Swift.

Thirtieth Regiment—Surgeon, Chase; Assistant Surgeon, Allingham.

Seventh Regiment, Reinforcement—Samuel Burnett Tuthill, Assistant Surgeon.

The New York State Medical Society having appointed eight Delegates to attend the meeting of the Connecticut Medical Society, and the President of the latter Society having signified, by letter to the President of the New York Academy of Medicine, that it would be highly agreeable to the Connecticut State Society, to receive a delegation from the New York Academy of Medicine, the Council, by a vote of the Academy, have appointed as such delegation, Drs. H. D. BULKLEY, J. G. ADAMS, J. LINSLEY, E. L. BEADLE, and S. T. HUBBARD. The meeting will be held on the fourth Wednesday in May.

TREATMENT OF TINEA BY CARBONATE OF COPPER.—Dr. Huet, physician to a large establishment for the reception of young criminals, many of whom, upon their admission, are found to be suffering from tinea favosa, has made an extensive trial of this plan of treatment, respecting which he reports very favorably. The head is to be thoroughly cleansed by means of cataplasms, and the hair to be shaved off; after the crusts have been entirely removed, the carbonate of copper is to be applied in the form of an ointment, consisting of one part of the carbonate of copper, and fifty parts of purified lard. It is occasionally requisite to suspend the application of the ointment, and to make use of the poultices for a few days before resuming its employment.—(*Répertoire de Pharm.*)

Original Lectures.

LECTURES ON DIPHThERIA.

DELIVERED IN THE COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

BY

A. CLARK, M.D.,

PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE.

LECTURE IV. PART I.

PATHOLOGY.—*Post-mortem examinations have as yet taught us but little more than we can see and infer during life; suppuration rare; infiltration of blood and ecchymosis sometimes seen; blood not "dissolved;" kidneys sometimes affected as in albuminuria; lungs in tracheal diphtheria congested and emphysematous. Does the membrane itself or the special inflammation that produces it poison the system?*
TREATMENT.—*The antiphlogistic plan in all its details forbidden; food, tonics, and often stimulants essential; the great principle being that life must be sustained till the disease, by natural laws, subsides; no unanimity regarding the usefulness of local applications. Note—concluding Dr. Noyes's case of Diphtheritic Conjunctivitis.*

Post-mortem examinations have added but little to our knowledge of the pathology of diphtheria. The disease, like the eruptive fevers, or croup, shows its nature pretty clearly during life. When we have learned clinically all that can be learned, we have ascertained nearly all that is known of its pathology. The pathological facts are, within certain limits, the symptoms of the disease. The inspection of the dead body has not yet taught us the nervous relations of diphtheria. It has not explained why there is such extreme prostration of the strength, why some die with pale and pinched features, and some are cyanotic; why the heart beats with extraordinary irregularity in some cases and not in others. It has not even informed us, as yet, what changes have occurred in the blood; why hemorrhages occur in some and not in others. It has not disclosed the nature of the poison, which the general belief refers to the blood, and which in some so speedily overwhelms the vital powers, and in others reserves a portion of its virulence for a later period to paralyze and benumb. The post-mortem appearances correspond with those noticed during life, in the fauces and about the neck, in everything but color and amount of swelling. Tissues that are seen to be red during life are often pale after death, and those that are beyond the reach of vision, as the mucous lining of the trachea, have been noticed so pale and so nearly healthy when the false membrane has been removed after death as to induce observers to doubt the inflammatory nature of the local disease. Often, however, this tissue, like those of the fauces, retains its red color, and when denuded of the exudation has the aspect of a recently blistered surface. In all cases the inflamed membrane appears to have lost its epithelium. The tonsils and other structures which readily swell, are usually less tumid after than before death. The tonsils have, in exceptional cases, disclosed after death moderate collections of blood and pus. The external glands of the neck, which, with very few exceptions, are more or less swollen, often enormously, but which so seldom suppurate, have been found, in a few fatal cases, to contain pus. An abscess has been found between the membrane of the pharynx and the vertebral column, after death, in a child whose dyspnoea was supposed to depend wholly on existing tracheal complications. Yet it must be admitted that suppuration, except the little that occurs on the free mucous surfaces, is but rarely met with. An instructive fact, not very uncommon, is the occurrence at or after death of petechial or ecchymotic spots on the surface of the body. The same discolorations by effused blood are not very rare on the surface of the heart. Occasionally,

but chiefly in the hemorrhagic cases, considerable infiltrations of blood have been found in the muscle of the heart, and among the muscles and tissues of the neck, and yet in such cases the blood has not been found (to use a word which is more intelligible than accurate) "dissolved;" for clots of usual firmness have been found in the heart cavities and in the large vessels, and the heart muscle has been found dense and firm. The kidneys are perhaps more variable in their post-mortem appearance, than any other organ of the body. In many who have died they have been found, both to common and to microscopic inspection, perfectly healthy; in some they have been deeply congested, and in some, the conditions so commonly seen in the œdema which follows scarlet fever have been closely imitated—granularity of the epithelial lining of the tubes; fatty accumulations in the epithelial cells, and sometimes within the Malpighian bodies; blood in the tubes; and in rare instances casts of apparently a fibrous character, soluble in acetic acid and liquor potassæ, have been found within the ducts. Yet these varying conditions of the kidneys have not been so associated with symptoms, albuminuria only excepted, as to teach us when to expect, after death, one or other of these appearances. The lungs, as a rule, show no marks of change beyond what is seen in other diseases, but in the tracheal cases they almost always present patches of emphysematous distension of the air vesicles, and often the dark color and increased density of venous congestion in different parts; this is sometimes general, with the exception of the islands of emphysema that stand out of it here and there. The bronchial tubes, in tracheal diphtheria of some days' duration, almost always show the evidences of simple or specific inflammation; and the evidence of this is usually found before death, in râles and rhonchi. Numerous other morbid conditions, besides those referred to here and heretofore, have been noticed in the bodies of those who have suffered from diphtheria, but none, that I can now remember, with sufficient frequency to be considered more than accidental. There is one question relating to pathology which does not seem to have been fairly raised or considered. It is this: Do all the phenomena of diphtheria arise from a morbid impression made before the first symptoms are developed, or are some of the later symptoms caused by septic influences derived from the local affection? Bretonneau has compared diphtheria with syphilis, to illustrate his view of the mode in which it is propagated. May it not be that in diphtheria as in syphilis, the local manifestation produces a poison which is diffused and produces general symptoms? The fact that when the membrane is not extensive, and disappears in two or three days, the recovery is generally rapid; and the converse, that it is among the cases in which the membrane remains for four to ten days or more, that the alarming constitutional symptoms are chiefly seen, give some support to this view. These facts are susceptible of another explanation perhaps. But should the question be answered affirmatively, we shall have a reason the more for endeavoring to find agents which will destroy the exudation, and prevent its renewal, if indeed such agents can be discovered.

The aim of all our medical studies is to prevent disease when it is possible; to cure when it cannot be prevented, or at least to palliate the suffering it produces. These results we are able to accomplish in different degrees in different diseases, and in the varying circumstances that modify the same disease. Some we approach with confidence in our power to control them. The rules of treatment we adopt are sanctioned by the unanimous voice or the profession in all countries where the practice of medicine is based on rational observation. The power of the salts of quinia in controlling periodic fever is universally recognised. The usefulness of iodide of potassium and the mercurials in syphilitic affections; of bleeding, general or local, in pneumonia; of cupping, blisters, and diuretics in pleurisy; of opium to allay pain and spasm, is everywhere acknowledged. The treatment of some diseases may be

regarded as established, and in its leading principles not likely to be changed till by further inquiry we discover new facts regarding their nature, or new agents which will more certainly or more speedily fulfil recognised indications. I fear we shall not be allowed to admit diphtheria into this class. Almost all diseases that are attended by a considerable mortality are excluded from it. There is no established treatment for cholera, because among the thousand plans that have been proposed there is not one which saves such a proportion of those attacked as satisfies the apparently reasonable demands of the profession. For the same reason there is no established treatment for acute hydrocephalus; none for sporadic croup—none for diphtheria. In saying this, I speak of the whole treatment, for I think one rule in the management of diphtheria is as well established and as generally insisted on as any in medicine: that is, to sustain the patient's strength by food, tonics, and often by stimulants, during the whole course of the disease, and to do this in the face of every difficulty. This rule is not an arbitrary one, but is the result of an extended and almost uniform experience in Europe and in this country. Many physicians in their early acquaintance with the disease have adopted the opposite plan, but have found that bleeding and depressing agents generally could not be safely persisted in. Bretonneau, in his second memoir, read before the Academy of Medicine in Paris in 1821, is very explicit on this point. He says (p. 4), "With regard to *Epidemic Croup*, I am compelled to declare, contrary to the generally received principle, that abstraction of blood has appeared to me hurtful, and to accelerate the propagation of diphtheritic inflammation. Emetics and blisters have been used without relief; and I can assert that these means have not been omitted in the greater number of patients who have died." "I have not abandoned it (depletion) without hesitation" (though it was condemned by the physicians of the seventeenth century); "I have been compelled, nevertheless, to yield to evidence, seeing so frequently the opposite of that which I had hoped. I am certain that the symptoms of croup [tracheal diphtheria], so far from being retarded, have several times manifested themselves immediately after the application of leeches, applied for the purpose of preventing this fatal disease, the fear of which had been excited by a very slight sore throat. I am now astonished that I did not sooner understand that sinapisms, pediluvia, and irritant injections were measures which were not appropriate to the nature of the disease, and were without proportion to its severity."

Dr. Turner, of Petersburg, Va., has given us his experience with this plan of treatment (*AM. MED. TIMES*, Dec. 8, 1860): "Depletants, mercurial alteratives, leeches, blisters, caustics, and common sage gargle, constituted my treatment when I first encountered diphtheria." "Those patients in whose treatment I employed mercury and local depletants fared the worst." "I soon determined that the disease was ultimately *asthenic*, and from this fact I derived the basis of what I consider sound treatment." In this experience of M. Bretonneau and Dr. Turner you have an account of what has occurred in the observation of many a sound practitioner, and of what will happen to you, I doubt not, unless you begin where such men end, in an entire abstinence from depletory measures, whether general or local. You have but little temptation from the examples of American physicians to abstract blood, because we had been apprised of what our European brethren had learned about it, long before the disease reached us. But knowing what power is ascribed to blood-letting in the management of inflammations, you would be almost forced to a trial of it unless you are informed how worse than useless it has been found by those who have preceded you. We may say then that general sanguineous depletion is forbidden in diphtheria, and if local bleeding is ever admissible it is only in exceptional cases. I will give you one quotation more in support of this statement from one of the high authorities on this disease. Trousseau (*Mems.*, p. 241) says: "If diphtherite did not differ from simple inflamma-

tions in its form, its progress, its dangers, and, in a word, in numerous characters which make it altogether a special disease, it might be supposed that antiphlogistic treatment would be serviceable; but we may conceive, *a priori*, that bloodletting and emollients would have no favorable influence, and experience has confirmed what analogy had led us to surmise. It is in vain to attempt to cure diphtherite by means of the antiphlogistic regimen. The inflammatory complications may be subdued, and yet the disease remains without losing any of its malignity." If we cannot inherit the wisdom of those who precede us we can at least profit by their learning. It is for that reason I have taken time to place this important point fully before you.

Diphtheria is not a "self-limited disease," in the sense in which scarlet fever, measles, and small-pox are said to be self-limited, yet it has a duration, varying much in different cases, but which rarely exceeds twenty days for the membranous and most dangerous period. If death does not occur in three, five, seven, ten, or twenty days in the different varieties and forms of the disease, we look for recovery. If we can sustain our patient through these trying periods, however varying, we have done much to insure his recovery. The virulence of the disease has exhausted itself, or at least its power to destroy is greatly diminished. What an eminent medical writer has said of typhus, can, I think, with equal truth be asserted of the constitutional management of diphtheria: "Our treatment can only be of benefit in an indirect manner, that is, in concert with the salutary efforts of the vital powers." Excluding, for the present, considerations relating to local applications, I may go further and say of this disease what Dr. Stokes says of fever: "We cannot cure fever. No man ever cured fever. It will often cure itself. * * * We prevent dying of exhaustion by food, by the use of stimulants and tonics. * * * We seek to preserve the patient at the least expense to his constitution up to the time when, by natural laws, the disease will spontaneously subside." Here for "fever," read *diphtheria*; transpose the words "stimulants and tonics," so as to give the higher position to the latter; then, even without reservation in favor of local applications, I believe you have found the great fundamental fact in the treatment of diphtheria. I do not wish to say, however, that the rigid enforcement of this important rule for twenty days will always be sufficient, or to say that in every case the dangers are all passed in that time. I have known the death of a child to occur thirty days after the first appearance of the membrane in the throat, and fully three weeks after the exudation in the larynx and trachea had been fully cleared away. Yet this I believe is but one case in a hundred. In general, among the very worst cases, those who have passed the dangers of the first three weeks recover. But the rule of treatment is applicable with modifications to the cachexia which often follows the bad cases, and to the paralytic affections which, though they are but little dangerous to life, are prolonged for weeks and sometimes for months. Having impressed, as I hope, these leading doctrines upon your minds, that bloodletting both general and local has been tried in vain; that active cathartics do no good; that emetics are worse than useless, except for a special purpose to be mentioned by and by; that revulsives can accomplish nothing advantageous; in a word that debilitating treatment but plays into the hands of the disease, if I may be pardoned the expression; and that all perturbing general treatment is forbidden; but that food, tonics, sleep, and stimulants (when needed) are the true antagonists of diphtheria—we will now try to appreciate the value of the local treatment, and determine, if we can, whether we possess any agents which have power to prevent or control its justly dreaded local manifestations.

Here, if I yield to my own convictions, I must say we pass from the certain to the doubtful. It is with reference to these local applications that we are compelled to say that diphtheria has no established treatment. If we ask whether nitrate of silver, muriatic acid, or any other caustic can stop the progress of this membranous disease of the throat,

we shall obtain contradictory answers. Bretonneau answers, yes—a thousand times yes. Trousseau answers, yes; Guersant answers, yes. Indeed, there is a confidence in the power of these agents among the French physicians, whose opinions are best known to us, that is all but overwhelming. There is a persuasion in their eloquent praises and reiterated assurances that has forced me to doubt my own experience; and when disappointed in the effects of these agents, to return to them again and again in the hope that, by a closer imitation of their methods, I might participate in their triumphs. Among our own physicians I know some whose faith in the saving virtues of a timely and efficient application of these substances is not dimmed by a single doubt. I have a friend, judicious and observing, who cannot convince himself that the throat membrane can ever resist the free application of solid nitrate of silver, or a solution of it, one hundred and twenty grains to the ounce of water, when it is used early and often. Dr. Woodward, of Brandon, Vermont, believes that he and his friend Dr. O'Dys, owe a portion of their success (sixty cases without a single death) to the early use of this agent. This, and alternative doses of mercurials, were their main reliance; and he seems to suppose that if the disease, which was so fatal in a neighboring town, had been treated in the same way, the results would have been more favorable. On the other hand, while the English physicians generally are far behind the French in their praise of caustic applications, many, like Greenhow, object to them altogether, except in particular conditions. Greenhow's language is worth quoting: "Local treatment applied to the throat internally has been almost universally adopted in the treatment of diphtheria; and, though I by no means deny its value when judiciously employed, I am sure much mischief has been produced by its indiscriminate use, etc. * * * Observing that the removal of the exudation, and the application of remedies to the subjacent surface, neither shortened the duration nor sensibly modified the progress of the complaint, but that the false membrane rarely failed to be renewed in a few hours, I very soon discontinued this rough local medication." When, however, the exudation is all within sight, and the surrounding parts are healthy, he thinks it is proper to apply solid nitrate of silver, or nitric or muriatic acid, for he says: "It is just possible in such cases that this treatment might check the progress of the complaint, and lead to a rapid recovery." (Diphtheria, pp. 263-4-5.) Dr. Turner, of Virginia, referring to similar applications (*American Medical Times*, Dec. 18, 1860), says: "I studiously avoid probangs; I look upon them as instruments of torture and death. I know I have seen cases that died from the constant mopping to which the throat was subjected." Dr. Metcalfe, of this city, says, of the application of nitrate of silver to the throat (*American Medical Times*, Aug. 25, 1860), that he cannot say he has derived any benefit from it. Indeed, in my intercourse with the physicians of this city, I meet but few who have not tried it, and disappointed in its promised benefits, have abandoned it. My own observation has taught me that the false membrane will not fall off by the mere application of nitrate of silver, either on the exudation or on the surrounding parts, without the use of some mechanical force; and that its application to tissues, after forced or spontaneous removal, will not prevent the reproduction of the exudation, at least in numbers of instances. I have seen the membrane appear when it was not looked for, in the course of scarlet fever for example, and where the nitrate of silver had been systematically applied for what appeared to be a different kind of sore-throat. Yet, in these cases, it has sometimes followed upon the very heels of that medication. Such facts as these, however, do not *prove* that the application of the nitrate of silver is useless. They destroy our faith in its unfailing virtues, and fairly raise the question, whether this kind of treatment is useless, cruel, and to be abandoned; or if failing in many, it really saves the lives of some. This doubt I cannot solve for you. I can only say that my faith in the curative powers of all caustic applications is greatly shaken.

But they are proper applications so long as there is any ground left for faith in them. That you may know how to use them, not from a doubter like myself, but from one whose confidence in the nitrate of silver, as the representative, and the best of them all, illuminates almost every page of ample memoirs, I shall quote again from Bretonneau. In his earlier memoirs, he recommends hydrochloric acid, diluted with three parts of honey; he even used this acid concentrated and pure. Powdered alum was also a frequent application. In his fifth memoir, he modifies his former statements (p. 192 and onward): "Of the local applications employed to modify the Egyptian ulcerations, there are none so painful as alum and hydrochloric acid, while a solution of nitrate of silver is less painful and more efficacious;" and he gives the credit of first suggesting it to Dr. Mackenzie, of Glasgow. "On the first day of the appearance of the Egyptian chancre (meaning here tonsillar diphtheria) a radical cure can be obtained in forty-eight hours." "It is sufficient to employ on the first day two local applications; one in the morning and one in the evening; and to repeat the proceeding the next day." The sponge used for the application should be moistened, not soaked. When the disease has passed into the trachea, the sponge should be applied with gentle pressure to the opening of the larynx, the epiglottis being held pitilessly forward. "After a few minutes' respite, the same proceeding must be repeated in all its details, the sponge having been washed, wiped, and dried, by pressure of a very dry piece of linen." He relates the case of a child three years old in which a membrane that was raised was a cast of the larynx, and its broken bronchial extremity had an alarming thickness, such as to forbid tracheotomy, but in which four applications in this way, each repeated (eight each day), were practised. "From the fourth day all anxiety ceased." "I affirm that without error in calculation, a solution of *thirty-two grammes* (four hundred and ninety-four grains) of the crystallized nitrate of silver was completely employed in this horrible treatment." Two-thirds at most being wasted; "yet the rest was in great measure mingled with the mucous matter drawn in at the time of the cauterizations." The linen washed and dried in the sun showed, by the black spots upon it, that unusual quantities of the salt had been swallowed.

When the disease is detected in the nostrils, he advises to inject a solution of nitrate of silver with a padded syringe; and to inject both nostrils, especially if there is the least swelling of the neck glands on the two sides. Bretonneau does not inform us regarding the strength of the solution which he prefers, but the common practice is to make it forty to one hundred and twenty grains to the ounce of water.

NOTE.

DIPHTHERITIC CONJUNCTIVITIS.

DEAR DOCTOR:—The subsequent history of the case described in the *Medical Times* for April 6, p. 222, is as follows:—The plastic exudation continued during fifteen days from the beginning. It limited itself strictly to the conjunctiva, both palpebral and ocular, of the right eye. After its disappearance the mucous membrane was still swollen and congested, but the tumefaction of the eyelids had diminished. The cornea escaped injury. There was never any chemosis. There seemed to be but little pain from the inflammation. Photophobia was not considerable. When the exudation ceased to be produced the constitutional symptoms greatly abated. The treatment consisted in the constant wetting of the eye with iced water, and the administration of sulphatis quiniæ gr. j., pulvis Doveri, gr. ij., every four hours. At a later period ferri protocarbonatis, gr. ij., were substituted for the Dover's powder, the quinine being continued. At no time was nitrate of silver employed. There remains a little redness yet about the eye, but vision is perfect, and the child enjoys its usual good spirits. It still takes the quinine and iron three times a day, but the local manifestations of diphtheria have quite disappeared.

Respectfully yours,

278 4th Avenue, April 26, 1861.

HENRY D. NOYES.

Military Surgery.

A COURSE OF LECTURES

DELIVERED AT THE

BELLEVUE MEDICAL COLLEGE HOSPITAL

BY

FRANK H. HAMILTON, M.D.,

PROFESSOR OF MILITARY SURGERY, AND THE PATHOLOGY OF, AND ACCIDENTS
TO BONES, ETC., ETC.

LECTURE I. PART II.

The Claims of Military Surgeons for Rank and Authority.

IT is with some reluctance that we shall call your attention to other subjects, having no very intimate relation to the general theme of our discourse, yet possessing a peculiar interest in their relations to the public service, the profession of medicine generally, and the medical gentlemen of the army. We allude to the subjects of rank and of authority.

Ever since the establishment of a medical department in connexion with armies, or until within a very recent period, it has been customary to consider and hold the medical officers, of whatever grade, as subordinate to the other branches of the service—conferring upon them neither rank nor authority in any case. The practice has been thought to be unjust to an honorable profession, and of doubtful utility to the public interest; and from time to time the subject has been pressed upon the consideration of the various governments by distinguished army surgeons, both in this country and upon the continent of Europe, whose representations have had the effect, in many cases, of bringing about certain manifest improvements, although they have failed anywhere to accomplish all that is desired.

In relation to *rank*, probably the most decided step in advance has been made in our own country by the Act of Congress approved Feb. 11, 1847, which declares that, "the rank of the officers of the Medical Department of the Army, shall be arranged upon the same basis which at present determines the amount of their pay and emoluments: Provided, that medical officers shall not in virtue of such rank be entitled to command in the line or other staff departments of the army."

This was a well considered and enlightened act of legislation, intended to remove the medical officers from that position of subordination where they had so long been subject to petty annoyances, and even to the insults of inferior officers of the line, and to secure for them those courtesies, and that respect, which they had a right to claim. It conferred no authority to command, nor any privileges which one gentleman ought ever to hesitate to concede to another; but it is well known that, from the time of the passage of this act until the present moment, a few officers of the army and navy have persistently refused to recognise its obligations, and that they habitually and openly violate both its spirit and its letter.

We wish especially to exonerate from this charge the great body of the army and navy officers, by whom the medical officers have been uniformly treated with the greatest courtesy. The exceptions, however, have been found to be sufficiently numerous, in which the officers of the line have refused to comply with the law, to call forth repeated remonstrances from the surgeons, and to render it proper in the opinion of Surgeon-General Lawson to issue a circular, recommending to medical officers a conciliatory but decided stand, reminding them that "encroachment promptly met will be more promptly checked; while any evidence of irresolution, or want of confidence in the correctness of their position, might lead to further aggression."

We understand those who refuse a compliance with the law to say, in justification, that surgeons are non-combatants, and that to combatants alone, upon whom, they affirm,

rest the hazards and responsibilities of war, rightly belong its honors.

This distinction has been made before, and it has been the constant pretext for opposition to the conferring of rank upon medical officers; yet we deny that it has any foundation in fact, and it is plainly calculated, if it is not intended, to depreciate our position and to underrate our services. Says Dr. Tripler: "The old distinction between combatants and non-combatants, as applied to the medical officer, has been roughly handled, and in not a few instances scouted as absurd, by officers of the highest rank in the British army. In our own army they are the only officers of the administrative branches of the general staff whose duties require them to be present on the field of battle. In the brilliant campaign of Gen. Scott in Mexico, the medical staff was the only one that had an officer killed or wounded. No officer of the Quartermaster, or Subsistence Department, was either killed or wounded. To any one who understands the meaning of terms, and the duties of these departments, to call one of them combatant in contradistinction to the other, as a pretext for conferring military rank upon that one and denying it to the other, is simply absurd. We may say as Cicero did of the Roman augurs: "We cannot see how two men, maintaining that opinion, can look each other in the face without laughing." Dr. Tripler properly adds: "Inveterate habit in the abuse of terms has drifted us thus far unresistingly with the notion that the Commissary of Subsistence, who purchases provisions in Cincinnati for the subsistence of the soldiers, is a combatant, while a medical officer is officially a non-combatant."

If exposure to hardship and danger is to be the ground upon which rank is to be conceded to officers of the army or of the navy, we think the claim of the medical officers may be easily determined. The medical officers are exposed to the same hardships on the march or in cantonment as the officers of the line; and while the latter have to incur the hazards of battle only occasionally, perhaps but once in a campaign, the former may be said to be doing battle daily, being constantly subjected to the dangers of pestilence by their exposure to the contagions and infections of crowded and unwholesome hospitals. We have not the statistics before us upon which to base a positive statement, but we entertain little doubt that, were the facts known, it would be found that in proportion to the number employed in any campaign, the number of deaths, or of invalided in the medical staff, by the ordinary casualties and exposures of the service, is greater than in any other department.

But as compared with the quartermaster or subsistence officers, the hazards of the medical officers are undeniably greater. The services of the first are never required upon the field; while the surgeons are expected to accompany their respective regiments until the action commences—and then only to retire to some position of comparative, but not absolute safety. The instances upon record in which medical officers have been wounded and killed upon the field of battle, when in discharge of their appropriate duties, are numerous. In savage warfare very little respect is usually paid to any theoretical distinctions between combatants and non-combatants; and in civilized warfare the distinction is by no means constantly observed by an excited and disorderly soldiery.

Surgeon Dunigan, writing from the Crimea during the siege of Sevastopol, states, "already one medical officer has been killed and two or three wounded. The first, Mr. O'Leary, Assistant Surgeon of the 68th Regiment of Light Infantry, was actually cut in two by a cannon-ball while in the act of assisting a wounded seaman. It is only to be wondered at that more casualties have not occurred among the medical officers, for during the heat of the fire they are constantly called from place to place, running along the batteries, through the line of fire, in quest of the wounded. During the second bombardment this peripatetic system was very trying and fatiguing, for the soil was heavy and tenacious from the torrents of rain that

then deluged the trenches; and instances occurred where officers' boots drew off while running along to assist the wounded**** "On the whole," he remarks, "this trench duty is very trying and hazardous; and in performing it, the medical men run the same dangers, if not more, certainly not less, than the executive officers, who are generally stationary in a battery, while the medical officer, as ubiquitous as possible, is rushing in all directions to succor the wounded."*

Dr. Jarvis, surgeon in the U. S. Army, in a letter dated Oct., 1846, describing the attack upon Monterey, says—"The nearest and only shelter that presented itself to me for the wounded, falling every moment under a most destructive fire, was a quarry pit, four or five feet in depth, and the same in breadth. Several of these were contiguous, and to them I directed the wounded to be carried. By stooping we were protected from the shots, which, however, became every moment thicker, owing to the fact that our troops had by this time advanced within range of the enemy's fire, and the moment they perceived a party of men bringing the wounded to us, they directed all their guns upon it. I had already performed one amputation, and was preparing for a second, when two or three fugitives rushed into the pit, falling over the wounded that lay there crowded together, saying that a large body of lancers were approaching. So little credit did I attach to their report, which I ascribed rather to their fears than to the actual presence of this dreaded description of troops, that I never raised my eyes to observe them, which circumstance doubtless saved us all. Had I been discovered, all would have been massacred, as in their headlong fury they would neither have delayed to ascertain our character or profession, nor have paid much respect to our patients. Several soldiers who had sought an adjoining pit, with an officer, were slain."

Several times, subsequently, during the engagement, Dr. Jarvis was compelled to change his quarters, owing to the constant and heavy fire which was kept upon the parties approaching with the wounded, whenever they were discovered by the enemy. And although it is true that the ambulance flag is generally respected, yet this, with many other similar examples to which we are prepared to refer, sufficiently shows that the exceptions are not rare.

The life of Larrey was frequently exposed to the most imminent hazards upon the field of battle. At Waterloo he was taken prisoner, and was upon the point of being shot, after having been robbed of his watch and purse, when he was recognised by a Prussian surgeon, and his life saved.

We wish, moreover, to remind the officers of the executive department of the army, that while there are many points of antagonism between their duties and those of the medical department, there are also some points of parallelism, and such as ought to suggest a sympathy and fraternity of feeling. If bravery is a quality of excellence in those who call themselves the "fighting men," when have medical men, either in or out of the army, shown themselves cowards? Not at Norfolk; not at Sandusky; not at Bellevue; nor anywhere else, so far as we know. Napoleon always called his medical officers "my brave surgeons;" and we believe that no class is less amenable to the charge of cowardice than medical men generally. They are trained in a Spartan school, under, if we may so term it, a law of ethics which allows no man to turn his back upon danger. Whatever may be the peril, they are expected to go wherever their services are needed. They make no great ado about it; nor are their names often mentioned in the official reports; and still less often are they breveted for soldier-like conduct; yet they go, wherever they are called, quietly about their business, alone or in small detachments, in rain and in snow, by night and by day, on the march and on the bivouac, through watchfulness, and fasting, and fatigue, into the midst of malaria, contagion, and battle.

We challenge any man to-day to point us to an educated

physician who has fled at the approach of pestilence, or who has hesitated to enter the trenches, or to face the batteries, if required to do so, in the performance of his legitimate duties. Even when the strict letter of his instructions forbade his exposure, the medical officer has seldom been backward to accept any duty which the exigency seemed to impose upon him.

In this way fell, at the terrible slaughter of El Molino-del-Rey, on the 8th of Sept., 1847, my own beloved pupil, George Wm. Roberts, Assistant-Surgeon in the 5th Regt. U. S. Infantry. Having received from the Staff Surgeon no authority to retire (an omission which, in the confusion of the onset, may be readily explained), he continued at the head of his regiment until nearly all the officers had fallen, when he begged permission from Capt. Hamilton, who was at that moment disabled by a wound in the shoulder, to be allowed to lead the broken column. Permission was granted, there being no officer of the line left to succeed in the command; and in a moment after Roberts received a wound through his head which proved fatal; but his death did not occur until several days after the battle, and when he had received at the hands of his comrades all the attention and care which their affection for him could suggest.

It is with pleasure that we refer those who deny the medical officers such courtesies as a law of Congress has instructed the officers of the line to observe, to the views of one who is in no way connected with the medical profession, and whose opinions, from the position of isolation and independence which he occupies, will be entitled to respect. Lord Dalhousie, in a memoir upon the Medical Service, appended to the Report of the Parliamentary Committee, remarks as follows:

"There are several particulars in which the Medical Service, as a body, lies under great disadvantages, and which they regard, justly in my opinion, as grievances that ought to be removed. I refer to the inequality which now prevails between the position of a medical officer and that of his brother officers, in respect of pension, honor, and rank. I respectfully submit that such inequalities are founded on no sound grounds of justice, expediency, or policy; no valid reason ever has been, or can be, alleged for maintaining them. Their effect is to depress the spirit of the medical officers, to depreciate a profession and class of service which ought to be held in the utmost respect, and supported equally from motives of prudence and gratitude.

"But the most galling, the most unmeaning, and purposeless regulations by which a sense of inferiority is imposed upon medical officers, is by the refusal to them of *substantive rank*. The surgeon and assistant-surgeon rank invariably with captain and lieutenant, but the rank is only *nominal*; whenever medical officers and others are brought together on public duty, the former have no rank at all, and the oldest surgeon on the list must, in such case, range himself below the youngest ensign last posted to a corps.

"It is impossible to conceive how such a system as this can have been maintained so long on the strength of no better argument than that it has been, and therefore ought to be! It is impossible to imagine what serious justification can be offered for a system which, in respect to external position, postpones service to inexperience, cunning to ignorance, age to youth; a system which gives a subaltern who is hardly free from his drill, precedence over his elder, who perhaps has served through every campaign for thirty years; a system which treats a member of a learned profession, a man of ability, skill, and experience, as inferior in position to a cornet of cavalry, just entering on his study of the pass and audit regulations; a system, in fine, which thrusts down grey-headed veterans below beardless boys."

The only remaining point to which we wish to call your attention is the amount of *authority* vested in the medical officers of the army, with a view to a consideration of the question whether it is sufficient for the purposes intended: and we may say at once, that it is the almost unanimous

* N. Y. Jour. Med., vol. 15, 2d series, p. 424, from Med. Times & Gazette.

opinion of the army surgeons that it is not sufficient unless the medical officers have complete control of the medical department; in the same manner and to the same extent, that the officers of the corps of engineers control their department. In this opinion the writer fully concurs.

The objections to the conference of authority upon medical officers are the same which have been urged against medical rank; and in addition to these it has been claimed, that to divide or distribute authority, is to destroy the unity and power of the army, and that it is essentially destructive of all military discipline. The first of these objections has already been sufficiently considered, and the second is very well disposed of by Dr. Tripler in a few words: "The dogma of the necessary alternate of commanding or being commanded, that has been the fruitful source of so many mischiefs, and is at the root of the difficulty of securing the efficient co-operation of the different professions that are now combined in the organization of the army, has had its practical refutation demonstrated in our service by the experience of almost half a century. The law forbids the exercise of command, out of their corps, to the officers of the engineers. Still they are not subject to the orders of their juniors in the line. They cannot command, nor are they commanded except by a superior; and what has been the result of this assumed military heresy? Let the world produce their superiors as an efficient and scientific corps! Their independence of all outside interference, and their being exclusively intrusted with the means of performing their own duties, have made them what they are, and the country has reaped the advantages of its wise legislation in regard to them. This is the only corps in the army that has any analogy with the medical, as regards scientific acquirements, specialty of function, peculiarity of administration, and claims to independence of action, because it is not at all understood or comprehended by any other department."

We conclude then, that to the medical officers ought to be intrusted the complete control of the medical department, because upon the preservation of the health of the troops depends in a great measure the success of every expedition; because no others than medical men are, by their education and habits, qualified to perform this duty; because no one else is competent to decide upon the proper location of a hospital, its construction, ventilation, or general arrangement; no one else can determine what is necessary for the sick, in the way of diet, clothing, medicines, etc.; no one else knows when rooms are overcrowded, and are in danger of becoming pestilential, or when patients can be removed with safety. In short, because officers of the executive department, from the entirely distinct nature of their pursuits, whatever they may believe to the contrary, do actually know as little of hygiene, medicine, and surgery, as they do of engineering. Because, moreover, medical men are supposed to be qualified, they are appointed for this express purpose, and because, without authority, they are unable to carry out their own views, and it is impossible, therefore, that the public service can receive the full benefit of their ability.

Fortunately recent events in the Crimea and in Turkey have furnished an opportunity to test, in some degree, the relative value of the two systems as applied directly to the medical department.

The French army sanitary system is exceedingly complicated, and its details are made out in the most elaborate manner, nothing is left to conjecture, every duty is defined so explicitly that there can be no chance of error. As to authority to deviate from these rules, they have none. Each hospital is placed under the charge of an officer of the line, called the Military Intendant, whose only qualification for this position is that he possesses military rank, by virtue of which he is entitled to command. The medical officer merely prescribes and makes surgical operations, dresses

wounds, and suggests. He cannot command the most subordinate attaché of the wards. He cannot, in theory, order a nurse to dispense a medicine, or a sick soldier to leave his bed, except through the Military Intendant.

In the British service, the system is much less elaborate, and there is much less precision in the rules which govern its details. So that, to the casual observer, it seems imperfect, and contrasts unfavorably with the French system; but the British surgeons are permitted to exercise a certain amount of authority over their own department, such as is not allowed to the French surgeons.

In the allied expedition against Russia, of 1856, the British medical officer had authority to command over the hospital orderlies, the nurses, and the apothecaries. He was permitted to regulate the general hospital police, to give orders, and to enforce their execution in relation to the hygiene, medication, and subsistence of the sick.

The result, fairly traceable to these apparently insignificant, but as every medical man knows them to be, important practical differences, was that the English army closed their campaign with a loss, by death or invaliding, of less than one-third of their troops, while the French had lost more than one-half of their whole number.

It must be understood also that by far the largest proportion of those who died or were invalided in these campaigns were thus lost to the service by epidemics, such as the cholera, dysentery, &c., which were in a great measure capable of prevention. The proportion lost by wounds received in battle was very small, probably not more than one in ten or fifteen.

Whether, as more than one writer has intimated, the French were compelled to make a hasty peace, because their forces were broken and disheartened by the progress of disease amongst them, we are not prepared to say; but however this may be, it is certainly capable of mathematical demonstration that without large additional conscriptions, and we may add, some change in the condition of the sanitary police of the army, the emperor would have been compelled soon to close the war on the part of France by a disgraceful retreat.

M. Baudens does not hesitate to declare the imperfection of the French regulations as contrasted with those of their English ally, and to intimate the real source of their own misfortunes. "The English hospitals," he remarks, "were remarkable for cleanliness. We have seen that this quality did not exist in ours. The difference is partly due to the higher and more independent military position which the English surgeon holds, and which entitles and enables him to exercise greater authority in hygienic measures. His ordinary sick-diet table is more ample and varied than the French, and the surgeon can order what extras he thinks proper for the sick. Indeed, the English camp was abundantly supplied with stores and comforts of all kinds; to which circumstance is to be ascribed its preservation from scurvy and typhus in 1856."

To the crowding of sick tents and huts into a confined area, in opposition to the protests of the army surgeons, both in the Crimea and at Constantinople, this writer ascribes the persistence of the cholera, and the prevalence and ravages of typhus and hospital gangrene. The army intendants and the medical officers entertained wholly different opinions as to what constituted overcrowding. The intendency functionaries "adhered to the strict letter of the military rule: so long as the patient had the regulation allowance of cubic feet, overcrowding was an impossibility; while physicians saw it to exist from the moment when disease was aggravated, and its fatality augmented by reason of too many sick being congregated within a given space."

What can be more conclusive? Admitting that some minor embarrassments might arise from an occasional collision of authority between co-ordinate branches; still is it not too plain to allow of a doubt, that to subordinate a department, with which are intrusted such vast interests, to a department wholly unacquainted with its duties, is to

* Amer. Med. Gazette. Introd. Lec. on Mil. Surg. By Charles S. Tripler, M. D., Surgeon U. S. A. (1843.)

put the whole army in extreme peril, and to place the results of the expedition almost upon the hazards of a die.

The position which we assume, however, is that, so far as experience goes, there is no evidence that by rendering certain departments of the army co-ordinate the danger of collision is increased. On the contrary, we believe that by this method alone can collision be effectually prevented. They will have less contact, either personal, ecremonial, or official—consequently, we believe, there will be less jarring, less jealousy, less crimination, and more faithful service.

We trust, for the sake of humanity, that the War Department at Washington will listen to the respectful suggestions which are constantly being made by experienced army surgeons upon this subject; and that these suggestions will receive from them early and earnest consideration.

Original Communications.

DIFFICULT OBSTETRICAL CASES.

BY GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING
PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

(Continued from page 274.)

CASE LX.—Eight Miscarriages—Successful Gestation—Loss of Child—Pelvic Presentation—Mother Recovered.

Mrs. —, pregnant for the ninth time, after eight miscarriages, came under my care without any hope of successfully reaching her time. The uterus and appendages presented no evidences of disease. She was the subject of acñe inveterata, and although I could obtain no clue from her or her husband, I inclined to the belief that there existed a syphilitic taint. Under a mercurial course of a mild character, alternating with the iodide of potassium and Donovan's solution, with the addition of absolute quiet in bed and the free use of opiate vaginal suppositories at the time for the customary menstrual period, she passed safely on to the eighth month of gestation, when she fell in labor. The breech presented—sacrum posteriorly, and all went well until the chin became fixed in front, and the child's life was lost before I could deliver.

The child was not large, but the soft parts were very rigid, as she was considerably past thirty. If I had had my forceps I believe that I could have delivered in this case, which happened some seven years ago, and which greatly annoyed me. Since then I have always sent for instruments whenever I have diagnosed a pelvic presentation. Meigs never said a truer thing in a more forcible way than when he reminds us that in these cases if forceps be required, "the child may die while your messenger is drawing on his boots."

CASE LXI.—Miscarriages—Raspberry Ulceration—Successful Gestation.

Mrs. — has had several miscarriages, and despaired of ever going to term. Vaginal examination showed raspberry ulceration of the os and cervix. Menstruation profuse—much leucorrhœa. Scarifications and the nitrate of silver carried well within the cervix greatly benefited her. She became enceinte. Applications of the nitrate continued for two months, with much rest and very free use of the opiate vaginal suppositories at the period for each menstrual return. Successful delivery at term of a living child after a natural labor, under the care of Dr. Geo. A. Peters, during my absence from town. Subsequent severe symptoms of metritis, preceded by inflammation of the absorbents in the left thigh. Recovered and passed successfully through a second labor.

CASE LXII.—Unilocular Ovarian Cyst in Recto-Vaginal Cul-de-Sac Complicating Parturition and the Cause of Death.

Drs. Fernandez and De Rosset, House Physicians.

Jennie Syzer, aged 24, was carried into Bellevue Hospital, Jan. 22, 1861, at 6 P.M., in a very feeble condition. Respiration hurried; pulse one hundred and twenty, and slender; skin moist; body emaciated, sallow, anæmic looking. Abdomen slightly tympanitic, lochial discharge scanty, milk secreted in small quantity, eight ounces of non-albuminous urine drawn with a catheter. Ordered Dover's powder, and a warm anodyne poultice to the vulva, which was swollen and painful. It appeared from the patient's account that she had been delivered instrumentally by a midwife of a dead child about a month before.

Jan. 23.—Symptoms of peritonitis better marked. Blister to abdomen; morphine and veratrum viride, with beef-tea. In the evening large clots of blood came from the vagina, with much hemorrhage, which yielded to ice, ergot, and the tampon; brandy freely given. 24th.—Pulse one hundred and forty-eight. Tampon removed; no hemorrhage; ergot and brandy with an enema, as the rectum was full of feces. On visiting the patient this day, and hearing the history of the hemorrhage, I dictated the following memoranda. I had made no vaginal examination on the preceding day, as the symptoms of peritonitis then overshadowed all others.

Posterior wall of vagina bulging forwards so as to make vaginal examination with the finger difficult. Os uteri not readily discernible to the touch, though a flattened opening exists above the top of the symphysis pubis, which could not be thoroughly explored. Examination through the rectum shows that the tumor felt through the posterior vaginal wall impinges on the calibre of the rectum, and can be readily grasped between one finger in the vagina, and one in the rectum. There is a feeling communicated to the finger in portions of the tumor as though its contents were fluid. The hand laid upon the supra-pubic region recognises a globular tumor, and sudden pressure from within the rectum communicates an impulse to this tumor, not a sense of fluctuation, but as though they formed part of one and the same tumor. The patient's condition being one of great exhaustion, the moderate use of opium and thorough support were directed.

25th.—General condition so far improved as to allow us to place her on her hands and knees, and in such other positions as to make as thorough examination as the very contracted vagina would permit—three fingers could be introduced. No os uteri could be reached. It seemed as though there were partial occlusion of the upper part of the vagina, and a feel not unlike a cul-de-sac. No result obtained with a uterine sound. Rectum bougie readily introduced. Slight pulsation detected within the vagina.

27th.—Patient's condition has been about the same. Pulse ranges from 120 to 140. Slight bloody and fetid discharge from the vagina. Sims's speculum shows the color of the vagina to be natural. I then introduced an exploring needle through the posterior wall, and pus escaped, when I enlarged the incision sufficiently to admit a uterine sound readily, when thin sanious pus flowed freely. Brandy increased in quantity, and carbonate of ammonia given. 28th.—Considerable vomiting, not repeated. With Sims's speculum and gentle pressure a quantity of the sanious pus discharged through the incision. Quinine. 29th.—Passed water herself for the first time since admission. Incision enlarged, and a quantity of pus evacuated, which ran steadily for six hours smelling very like asafetida. While the pus was flowing, my hand placed over the supra-pubic globular tumor suddenly mapped out the uterus in its totality, not as though rising from a deflected position, but as though suddenly standing out in relief against a tumor placed posteriorly. Length normal. Os uteri to be reached an inch and a half above the pubes.

Feb. 4.—The discharge has steadily continued, with the same odor, increasing in amount when the bowels—which were always regular—were moved. The strength has been steadily failing. Mind weakened. Died this afternoon.

Autopsy twenty-one and a half hours after death.—In the

presence of Drs. Taylor and Barker, and Drs. Fernandez, De Rossett, Rives, and others of the House Staff, and Dr. Teats, acting curator. Weather cold, rigor mortis well marked. Body emaciated; abdomen not swollen; opened by a crucial incision. No fluid or gas escaped. Evidences of peritonitis confined to the hypogastric and iliac regions. Adhesions of a firm character. Uterus in its normal axis, perfectly involuted, rises above the pubes. Left ovary somewhat enlarged, rests upon the left side of the fundus uteri. Recto-vaginal cul-de-sac obscured by adhesions on a level with the brim of the pelvis. Horizontal and descending rami of the pubes sawn through and the bone removed. During this procedure pus escaped freely from the incision in the posterior vaginal wall. Bladder presenting no appearance of interest, dissected from the vaginal wall. Incision through the anterior vaginal wall prolonged through the uterus. Os uteri shown to have been perfectly dilated and almost entirely obliterated, excepting at two points where the lips were thickened and projected from the vaginal wall. Recto-vaginal cul-de-sac occupied by a tumor into which a sound could be carried through the incision in the posterior vaginal wall described in the history of the case. This tumor was ovarian, unilocular, containing pus, and a mass about the size of a small orange of fatty matter, hair, and a part of a maxillary bone, with one incisor and two bicuspid teeth. Liver and stomach healthy; kidneys apparently fatty, heart of normal size, valves healthy—pericardium universally adherent; lungs healthy; brain not examined.

These specimens were shown to the Pathological Society and have been preserved by Dr. Teats in the Museum of Bellevue Hospital. He also found, in preparing the specimens, an opening in the upper part of the cyst evidently made by ulceration, the existence of which had not been appreciated before.

CASES LXIII., LXIV., LXV., and LXVI.—*Puerperal Mania*.—*Recovery*.—Reported by DR. FERNANDEZ, House Physician.

Ellen Doyer, married, age not known, first confinement, admitted into Bellevue Jan. 9th, 1861, with all the symptoms of puerperal mania unattended with any fixed delusion. Pulse 104, weak. Surface warm and inclined to perspiration; tongue moist and somewhat coated, mammae not developed, lochial discharge slight in quantity, but otherwise natural. Bowels constipated. Urine free from albumen now and subsequently. It was necessary to apply the strait-jacket, though it was not drawn tight. She was confined to her room for ten days with the exception of a couple of hours a day, when she was allowed to walk about under surveillance. Her nights were sleepless, although she would occasionally enjoy short intervals of repose. Opium was used but twice. Generous diet and stimulus ($\frac{3}{4}$ ij. to $\frac{3}{4}$ ij. daily) constituted her treatment, with attention to her bowels. On the 19th amelioration of the symptoms became manifest. She was calm and subdued, and answered questions readily, and has since continued to improve.

She retains no remembrance of her illness, which was due to ill-treatment from her husband. Her pulse was always rapid, ranging from 85 to 100, and once as high as 120.

I have seen three other cases of puerperal mania in which the urine has been examined, since the cases published in the *N. Y. Journal of Med.*, July, 1858. One, seen in consultation with Drs. Loomis and Bolton, and of a very bad type, gave no evidence of albumen; a second in Bellevue occurring during lactation, and requiring the strait-jacket, had no albuminuria and recovered; a third was a primipara confined in Bellevue, in whom the delirium was of a quiet, stupid, sullen type. She remained in bed in a state of apathy. In her case albuminuria existed, but there had been no convulsions in her confinement. She improved gradually, and, I believe, was finally quite restored.

CASE LXVII.—*Puerperal Mania*.—*Believed to have Recovered*.

Mary Murphy, aged 25, first confinement, Feb. 24th, 1853. Head presentation—twenty-four hours in labor. Female child, living. Lying-in Asylum.

Three days after confinement she was attacked with puerperal mania of a mild, refined type, chiefly referring to literary pursuits, with which she could have but slender acquaintance. Pulse ranging about a hundred. She never sought to injure her child, nor did she conceive any aversion to it. Lactation, lochia, and dejections normal. Urine free from albumen, and presenting nothing under the microscope but quantities of crystals of the urate of ammonia, and some oil globules. She was finally removed without any improvement in her condition, though there were no apprehensions felt for her life.

CASE LXVIII.—*Puerperal Mania*.—*Recovery*.

I remember another case in the Asylum of which I have no notes. The patient awoke suddenly in the night, exclaiming that her house was on fire and her husband "bur-r-ned." She remained about a week inconsolable for his loss, constantly weeping and wringing her hands, and refusing to be comforted. The milk, lochia, dejections, and urine afforded me no indication for treatment, and I allowed her to wander through the building until the delirium exhausted itself, which it eventually did.

CASE LXIX.—*Malformation of Vagina*.

Dr. Cadmus asked me to see a patient of his with a double vagina. She was married, but childless; vulva well formed, vagina divided by a septum running its full length in the plane of the antero-posterior diameter. This septum was thin and sufficiently movable to allow sexual intercourse to take place in either division of the vagina, though pain was experienced when the left one was used for that purpose. Some small arterial branches could be felt in the septum near the vulva. On either side of the septum could be seen, through a speculum, a well-marked os uteri, but I could not succeed in introducing a sound, nor could I map out the fundus through the abdominal wall. Menstruation regular. It is probable that a double uterus also existed in this case.

FORMATION AND SPONTANEOUS CURE OF ARTIFICIAL ANUS.

By CHARLES H. OSBORNE, M.D.,

OF NEW YORK.

ELIZABETH DALMAGE, native of Scotland, aged 46 years, of a remarkably strong constitution, on the 1st of December, 1860, while lifting a heavy weight (to express it in her own language), "she felt something give way." She continued at her work during the remainder of the day, feeling very little pain. Upon retiring to bed she first made the discovery of a large tumor in her right groin, which proved to be a direct inguinal hernia. She states that, while feeling this tumor, she became nauseated, and afterwards vomited. She was advised by some friends to apply linseed poultices, which she continued to do until I was called to see her, on the morning of the 3d of December, two days after she received the injury. I found her laboring under a high fever, full, quick pulse, and complaining of great headache. Upon making an examination of the parts, I found a tumor about the size of a teacup, with a spot of gangrene half an inch in diameter on each side. Upon touching the tumor, the lower spots gave way, discharging a large quantity of offensive pus. I prescribed as a local application yeast poultices, and administered opium internally. I called the same evening and found the fever much abated, pulse reduced to about 90. Soon after I had left in the morning, she had had an inclination to take a stool, and upon straining, several inches of gangrenous gut protruded from the lower opening, followed by a large quantity of half digested food. I removed the dead portion of the gut and cleansed the wound with soap and water, reapplied the yeast poultices, and continued with the opium, one grain

every three hours.—*Dec. 4th.* Fever lessened, pulse 80. Inflammation subsided in the tumor, discharge of pus and small quantity of food; continued the same treatment, the wound being cleansed before the application of each poultice.—*Dec. 5th.* Pulse 60, but very weak, strength failing fast. Cold extremities, nausea and vomiting. The administration of opium suspended; ordered beef-tea, wine whey, etc. From this date the wound rapidly healed by granulation, adhesion taking place between the edges of the gut and the wound; and on the 18th the old passage was re-established, and she had a very comfortable stool from her anus proper. By the first week in January the wound was entirely healed, and the patient was in the enjoyment of her usual good health.

Reports of Hospitals.

NURSERY AND CHILD'S HOSPITAL.

EMPHYSEMA; COLLAPSE OF THE LUNG; FATTY LIVER.

[Reported by Dr. J. LEWIS SMITH, M.D., Curator.]

INTERLOBULAR emphysema, affecting the upper parts of the lungs, is common in infants, but it is generally so trifling as not to compromise life or impair the health. The following case is interesting on account of the extent of the emphysema and the collapse of the lung, both due to slight disease in the pulmonary tissue.

A record has been preserved of the condition of the liver in seventy-eight of the autopsies made in this Institution during the past two years, and in a large proportion of these cases this organ was examined by the microscope. It has not often been found so fatty as in the following case, but in fourteen of the seventy-eight, the oil globules were so much in excess as to produce the characteristic yellow color. In four other autopsies, portions of the liver were fatty, while other portions appeared to contain only the normal amount of oil globules. In nine of these eighteen cases the fatal disease was cholera infantum; in five tuberculosis; in two tuberculosis with cholera infantum; in one cancerum oris, and in one chronic meningitis.

The preponderance in cases of cholera infantum was, no doubt, due to the fact that this has been by far the most fatal disease in the Hospital. The fatty deposition appeared to be connected with the inanition in the brain, but not in all instances.

March 17th, 1861.—E. N., a female infant, seven months old, was admitted into the Hospital (service of Dr. SWIFT) about two months ago, with impetigo capitis. She was wet-nursed and placed under the most favorable circumstances; but although the eruption became better, she gradually wasted away, a cough commenced, and her respiration grew more and more oppressed. She moaned and was very fretful, and, finally, the day before her death, which occurred March 16th, an emphysematous swelling was observed around the neck, at the top of the sternum. From the symptoms and history of the child, and from the fact that the father is in the last stages of consumption and still alive, she was supposed to have the same disease.

Autopsy.—Body emaciated; on opening the pleural cavities the left lung was found collapsed and the right partially so; under the pulmonary pleura and between several of the lobules on the side were collections of air; air was also found in the mediastinum and along the course of the right bronchus and under the pleura covering the upper and middle lobes on the right side; mucous membrane of bronchial tubes healthy, and little if any fibrinous deposit on the pleura; on attempting to inflate the lungs under water, air escaped from the anterior margin of the left upper lobe, and here a small irregular rent was found through the pleura, and into the lung; the lungs were readily inflated when this rent was closed; near the opening were a few white

points of a tubercular appearance, and tubercular cells were discovered by the microscope; no tubercles were observed in any other part of the lungs, nor in the bronchial glands; a few of the mesenteric glands presented a tubercular appearance, but they were not examined by the microscope; liver very fatty, and enlarged, so as to extend to the umbilicus; abdominal viscera otherwise healthy; head not examined.

American Medical Times.

SATURDAY, MAY 4, 1861.

WAR AND MEDICINE.

"CHIRURGERY triumphs in armies and in sieges—'tis there its empire is owned, 'tis there that its effects express its eulogium;" and when the armed pride of States is menaced by pestilential diseases and wasting debility in crowded military camps and hospitals, then it is that medicine and hygiene are recognised in their natural and indispensable relations to national strength and the public welfare. It is of little avail that a SCOTT or a BEAUREGARD lead a contending army, if General Debility is found in the camp. An army that has no other enemies to fear than those it can see and meet face to face, is not likely to falter or be conquered. That "more campaigns are conquered by sickness than by the sword," has long been a standard axiom with the commanders of military forces. And at the same time it may be stated with equal truth, that a very large per centage of the mortality from wounds inflicted in battle might be prevented by a more comprehensive and timely preparation for the terrible events of the conflict. Momentous consequences and immense responsibility, therefore, rest upon the constituted authorities of State who direct and appoint the military medical service.

The cry of war which now rings throughout the land has brought us to a realizing sense of the importance of more thoroughly organizing the medical department of our State militia. We say medical *department*, instead of *staff*, and we say it advisedly, because, so far as the staff are concerned, there are steps being taken to insure, in future, a higher measure of proficiency than has heretofore been the case. Aside even from the occasional incompetency of their surgeons, the number detailed for service in each regiment is altogether too small. One surgeon and surgeon's mate are not sufficient to attend upon a thousand men in *active* service. Even in simple hospital practice, and confining themselves only to the legitimate in-door duties thereof, they would have their hands full; while the other calls which they should be able to meet in the field could not receive the attention they deserve. It is true that two hospital stewards are usually allowed each regiment, but when the various duties of cooking, nursing, and washing are considered, it will be readily perceived that this number is far too small, and that, consequently, a general inefficiency of the whole hospital service is the result. A destructive battle, or an epidemic, suddenly overflowing the wards of a hospital, would so increase the duties of the whole staff as to cut them off from the ability of accompanying a column in the field which might undertake to pursue a retreating enemy, or to

make an advance into his territories. Our success, while always to be desired, should be obtained at as little sacrifice of human life as possible, and as statistics show that, in all campaigns, about eighty per cent. of the deaths result from disease, it becomes the part of wisdom no less than humanity to see that no scientific means be wanting to diminish a mortality so preventible. The poet of health has truly said that,

..... "For want of timely aid,
Thousands die of medicable wounds;"

and it is on this account, and in acknowledgment of this melancholy truth, that all medical departments in the army should be organized with a constant and overshadowing intention of securing not only the most ample and efficient provisions for the wounded, in all that relates to the details of capital and minor surgery; but also, and as a matter of indispensable necessity, that department should see to it that the army be amply supplied with the very highest medical and hygienic skill, together with every requisite appliance for the preservation of the health of the troops, the construction and supply of proper hospitals, the comfort and nursing of the sick, and the transportation of the convalescent.

Surgeons and their Assistants.—Nothing short of a practical familiarity with surgery, and a thorough medical education, should be accepted as an index of qualification in one seeking to become surgeon or surgeon's mate to a regiment, and, properly speaking, an acquaintance with military surgery ought to be required; but as this would exclude many, otherwise very competent persons, we would hardly insist upon this as a *sine quâ non* where other qualifications were sufficiently possessed. But a knowledge of the modes of organizing hospitals, of providing for their hygienic condition, and of superintending their various departments, whether pharmaceutical, alimentary, or of nursing, should be rigorously insisted upon. This knowledge being indispensable to the successful treatment of the sick, should always be possessed by the military surgeon, otherwise he is unfit to be intrusted with the charge of a hospital. An acquaintance with medical topography is also another element which the surgeon should incorporate in his qualifications. In directing the choice of a site for a camp or an hospital, where such choice is permitted him, a skilful surgeon and hygienist may do much towards preventing unnecessary exposure to local causes of insalubrity—to malarious influences—and thus avoid those epidemic visitations of disease which are ever prone to attend upon masses of individuals suddenly transported from the comforts of quiet homes to the fatigues, the exposures, and the exclusive diet of camps. No one who has ever read Sir Jno. PRINGLE's work on Diseases of the Army, can fail to perceive the ameliorating circumstances which a truly scientific medical director always has in his power to throw about the hygienic condition of an army, in even the most unhealthy of seasons and positions. This little treatise should be faithfully perused by all army surgeons as a valuable epitome of military hygiene.

Ambulance Corps.—Next to surgeons and proper assistants, the *ambulance corps* forms a most important adjunct to medical service in the field. This corps is usually extemporized, but it seems to us that at the present time it might be made a very useful sphere in which to introduce medical students to a practical acquaintance with military surgery, by making it a permanent branch of the same. The

corps for each regiment should consist of one assistant surgeon, four mates, and sixteen privates, divided into four parties, each having charge of one ambulance. The assistant-surgeon might be taken from the regimental surgical staff, thus leaving this latter with still one assistant, at the permanent hospital. Medical students could officiate as mates in the ambulance corps while in the field, and as *hospital-dressers* afterwards. The duties of the ambulance-corps being to follow the regiment into battle, and to afford *provisional succor* to the wounded before their transportation to the hospital proper, and, where the battle extends over a large space of territory, this necessitating much time and delay, no means should be wanting either instrumental or of skill to alleviate at once the suffering, and to avert, if possible, the fatality of wounds. Light two-wheeled flying ambulances, and a sufficient number of good sedan stretchers, with efficient corps for their management, should be provided as an indispensable arm of service in every regiment. The proper mode of organizing and outfitting these important means of succor for the wounded will be stated in the next number of this journal.

On no account should the wounded ever be left alone and without a medical assistant on their way to the hospital. Grave accidents have frequently happened to wounded men thrust promiscuously into ambulances, and driven off rapidly, too often over rough ground, to the hospital. System, wherever it can, should regulate all the details of medical field service. Tourniquets, lint, bandages, styptics, and stimulants, with *water*, should form the indispensable equipment of each ambulance. The instruments, etc., should be carried by the members of the corps, every one of whom should know at least how to apply a tourniquet, until the more scientific aid of the assistant-surgeon, or his assistant, can be obtained. In this way the wounded could have every possible succor given them, and that too at the *earliest* moment. And since, in cases of this kind, time is an element of the greatest importance, it can be easily perceived that nothing should be omitted to render this aid accessible at a moment's warning. Considering how many young medical men there are who thirst for an opportunity, as well to serve their country and humanity, as to perfect themselves in surgical knowledge, we cannot feel that the State could do our brave volunteers a more signal service than to enlarge the medical staff of our various regiments to an extent commensurate with, what it strikes us, must eventually become among the most prominent necessities of our medical service in the army. All will agree, at least, in the fact, that the Medical assistance hitherto provided to meet the exigencies of the terrible conflict that is impending, is not adequate to the probable necessities of the army, and that in no respect could greater service be rendered our regiments than by the organization and instruction of a sufficient number of good ambulance corps.

Hospitals, Camp Hygiene, and Nursing.—SIR JOHN PRINGLE has said, that "Hospitals are among the chief causes of mortality in armies." Unwelcome as that remark has been to many a philanthropic mind it, is nevertheless based upon the results of large and reliable experience. Even in the spacious hospitals at Scutari, during the earlier period of the Crimean campaign, nearly one half of all the patients died; the rate of mortality being 42.7 per cent. on cases treated. And the subsequent enlightened management of those crowded wards clearly demonstrated the fact that the death-rate in those, and all similar hospitals, could readily

be reduced to about the ordinary average of the best civil hospitals at home. SIR JOHN BELL'S remark, that "there is a peculiarity, but no mystery, in gun-shot wounds," may be extended and fairly applied to all the various causes of death in military hospitals. There is a striking peculiarity, but there is nothing uncontrollable in camp diseases and their causes. Every Army Surgeon should make it his religious duty to comprehend and control such diseases and causes of disease as are prone to hover about encampments, and secretly break down the strength of armies. Let this matter be thoroughly appreciated by our Federal and State bureaux of Medicine, and our nation is secure from any assaults of its foes.

In rehearsing the terribly instructive experience in Surgery and Hygiene in the Crimean campaign, Dr. G. H. B. MACLEOD concludes by declaring that, "A review, however superficial, of the Medical annals of the War; of the hygienic causes and local circumstances which led to the appearance and development of disease in the army; reiterates in trumpet tones the same lesson—confirms and enforces the same conclusion—that the barometer of health rose and fell, as external circumstances, favorable or injurious to health, were attended to or neglected. *These circumstances were, in a great degree, under our own control, as will always be the case whether in camp or the city. This being so,*" he very emphatically and justly asserts, "IT IS SURELY THE FIRST DUTY OF A GOVERNMENT, AS WELL AS OF A COMMANDER, TO ADOPT EVERY POSSIBLE PRECAUTION WHICH CAN GUARANTEE THE HEALTH AND LIFE OF THE ARMY TO WHICH THE HONOR, AND EVEN THE SAFETY, OF THE STATE ARE INTRUSTED."

Let this important and truthful declaration, coming as it does from the latest and largest experience of military surgeons, be indelibly impressed upon our Federal and State authorities, and upon the American Medical profession.

In our next number, we will consider the subject of Hospital Organization and Nursing.

THE WEEK.

THE N. Y. MEDICAL ASSOCIATION for the supply of lint, bandages, and other surgical and hospital stores to the army, was called into existence at the suggestion of Dr. CRAWFORD, the hero surgeon of Fort Sumter; and having become efficiently organized, and brought into proper relations with the Army Medical Bureau, its utility promises to be of vast importance. At a central and commodious dépôt in Union Square, the Association is prepared to receive, assort, pack, and properly distribute all the voluntary offerings of medical men and the people to the surgical supplies of the army. And inasmuch as its Executive Committee is placed in direct and constant communication with the Medical Purveyor's Department, and has immediate and specific information of what supplies may be required for the field and hospital service, we would advise that the Association's dépôt in Union Square be the point not only for accumulating such supplies, but that to its officers, who are in daily session there, be committed the contributions of funds from all sections of the country for the purchase of such articles as can best be procured or manufactured to order in this city. Our readers will see, in another column, that hospital knapsacks, field stretchers, or light ambulances, and various other articles which are not only expensive, but which must be of particular patterns and quality, are included in the catalogue of supplies

that are to be furnished. Medical gentlemen from the country, and all the candidates for army medical service, will do well to visit the Association's rooms.

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WOMAN is by nature truly patriotic. Home, country, and good government, are to her the most sacred appointments of divine Providence. There was an impressive illustration of woman's patriotism, love, sympathy, and keen foresight of the soldier's wants, given impromptu at the great Hall of the Cooper Institute last Monday morning. Without noise or posters upwards of three thousand ladies assembled at 11 A.M., to hear the report and adopt the plan of a central committee who, during the previous week, had in counsel with physicians, devised a plan for the selection, training, and commissioning of suitable female *nurses* for the military hospitals, and also for the more judicious, economical, and systematic contribution of supplies for the troops and their sick or wounded. A simple and effectual plan was proposed and adopted, some of the details of which will be given in our next number. This central organization, under the judicious guidance of its Board of Managers, cannot fail to fulfil its great purpose, viz. *to select and provide none but suitable women for army nurses*, and to aid the women of the country in giving a wise and timely direction to their various contributions of hospital, field, and camp supplies. It should be remarked that preliminary to this central organization, the Medical Boards of the five Hospitals of the city united in a joint committee to aid in the selection and training of nurses. At the same time the Boards of Governors of the Hospitals previously engaged to render all the aid in their power to facilitate the work which should be thus undertaken by the physicians and the ladies. The Ladies' Committee on the Selection and Registration of Nurses meets daily at the Cooper Institute, and the Physicians' Hospital Committee act in concert with them. Now that the hospitals and their physicians have so nobly proffered facilities for the practical instruction of nurses, let the work be well done.

—
WE are glad to learn that PROF. HAMILTON'S course of Lectures on Military Surgery, now being delivered in the preliminary course of BELLEVUE HOSPITAL MEDICAL COLLEGE, is largely attended. The course is extremely well adapted to the present emergencies of the profession. DR. JAMES R. WOOD has also commenced a course of lectures, in the same institution, on operative surgery, for the benefit of surgeons about entering the army, and will furnish material to those who may wish to practise operations. A rare opportunity is thus offered to those about to assume the responsible positions of surgeons to volunteer corps, to qualify themselves for the discharge of their duties. We are glad to hear that many are already availing themselves of these privileges.

—
SURGEON GENERAL VANDERPOEL is doing all that lies within his power to give efficiency and character to the Medical Staff of our State troops; and we would correct an erroneous impression that some remarks in our last number may have conveyed respecting the utility of the official examination of candidates for medical service in the army. Upon inquiry we find that the ordeal passed by the candidates at Albany is not only a thorough one, but that those examinations will not hereafter interfere with the movements of volunteer regiments. Our profession may be

grateful to DR. VANDERPOEL, and to DRs. MAREH, HUN, and COGSWELL, his Board of Examiners, for the thorough work they are doing. DR. MOTT, the Inspector of Troops, and DR. AGNEW, the Medical Director of Hospitals, etc., for this city, are likewise indefatigable in their exertions.

THE AMERICAN MEDICAL ASSOCIATION will be compelled to postpone its meeting at Chicago, as the Sanitary Convention has already decided to do. The entire North is waiting orders to shoulder arms, and the unhappy South is already in arms. No conventions except for war or for conciliation can be held.

Reviews.

THE BREATH OF LIFE, OR MAL-RESPIRATION, AND ITS EFFECTS UPON THE ENJOYMENTS AND LIFE OF MAN. By GEORGE CATLIN. John Wiley: 1861. pp. 76.

Who would have supposed that the three curt Saxon words, SHUT YOUR MOUTH, which we have been accustomed to hear from boyhood, contained a great sanitary truth? Yet such is the fact, if we accept the theories of Mr. Catlin. We are not prepared to deny them; indeed, we are disposed to yield them a certain degree of credibility. But, in order to a proper understanding of our author's reasoning, we must premise a word in regard to his opportunities for investigation.

Mr. Catlin has long been known as an extensive traveller among the Indian tribes of North America. He states that he has visited one hundred and fifty tribes, containing in the aggregate more than two millions of people, scattered in every latitude of the American continent. He seems to have been struck with the small mortality, especially of children, in the more savage tribes, and directed especial inquiries as to the causes. The principal of these, he concludes, is the habit of keeping the mouth closed—a habit early impressed upon the child by the mother.

The results of these inquiries of our author in regard to infant mortality among the infant tribes are worthy of record. In a small village on the Rio Trombutas, Brazil, containing two hundred and fifty persons, the Chief and his wife could recollect of but three deaths of children under ten years of age, in ten years, and those were violent deaths. The Chief of a band of Sioux stated, that of the fifteen hundred in his tribe, he could not learn from the women that they had lost any children in that time, except two or three from accidents; stillbirths were unknown. The Chiefs of the Mandans, on the Upper Missouri, a tribe numbering two thousand, stated that the death of a child under ten years was a very unusual occurrence. Nor was a case of idiocy, lunacy, crooked spine, deaf and dumb, or indeed of any disabling deformity, known. The Chief of the Pawnee Picts, living on the head waters of the Arkansas River, informed him that they seldom lost a small child; that women never die in childbirth; that idiots, lunatics, deaf and dumb, &c., are unknown.

Similar statements are made in regard to all the savage tribes, while those bordering on civilization attribute their sickness to whiskey and dissipation.

We cannot do justice to the author's views without quoting them at length, in connexion with the graphic illustrations of the text:—

"Man's eares and fatigues of the day become a daily disease, for which quiet sleep is the cure; and the All-wise Creator has so constructed him that his breathing lungs support him through that sleep, like a perfect machine, regulating the digestion of the stomach and the circulation of the blood, and earrying repose and rest to the utmost extremity of every limb; and for the protection and healthy working of this machine through the

hours of repose, He has formed him with nostrils intended for measuring and tempering the air that feeds this moving principle and fountain of life: and in proportion as the quieting and restoring influence of the lungs in natural repose, is carried to every limb and every organ, so in *unnatural* and *abused* repose do they send their complaints to the extremities of the system in various diseases; and under continued abuse, fall to pieces themselves, earrying inevitable destruction of the fabric with them in their decay.

"The two great and primary phases in life and mutually dependent on each other, are *waking* and *sleeping*; and the abuse of either is sure to interfere with the other. For the first of these there needs a lifetime of teaching and practice; but for the enjoyment of the latter, man needs no teaching, provided the regulations of the All-wise Maker and Teacher can have their way, and are not contravened by pernicious habits or erroneous teaching.

"If man's unconscious existence for nearly one-third of the hours of his breathing life depends from one moment to another upon the air that passes through his nostrils; and his repose during those hours, and his bodily health and enjoyment between them, depend upon the soothed and tempered character of the currents that are passed through his nose to his lungs, how mysteriously intricate in its construction and important in its functions is that feature, and how disastrous may be the omission in education which sanctions a departure from the full and natural use of this wise arrangement?

"When I have seen a poor Indian woman in the wilderness lowering her infant from the breast, and pressing its lips together as it falls asleep in its cradle in the open air, and afterwards looked into the Indian multitude for the results of such a practice, I have said to myself, 'glorious education! such a mother deserves to be the nurse of Emperors.' And when I have seen the *careful, tender mothers* in civilized life, covering the faces of their infants sleeping in overheated rooms, with their little mouths open and gasping for breath; and afterwards looked into the multitude, I have been struck with the evident evil and lasting results of this ineipient stage of education; and have been more forcibly struck, and shocked, when I have looked into the Bills of Mortality, which I believe to be so frightfully swelled by the results of this habit, thus contraacted, and practised in contravention to Nature's design.

"There is no animal in nature excepting man, that sleeps with the mouth open; and with mankind I believe the habit, which is not natural, is generally confined to civilized communities, where he is nurtured and raised amidst enervating luxuries and unnatural warmth, where the habit is easily contraacted, but earried and practised with great danger to life in different latitudes and different climates; and, in sudden changes of temperature, even in his own house.

"The physical conformation of man alone affords sufficient proof that this is a habit against instinct, and that he was made like other animals, to sleep with his mouth shut—supplying the lungs with vital air through the nostrils, the natural channel; and a strong corroboration of this fact is to be met with among the North American Indians, who strictly adhere to Nature's law in this respect, and show the beneficial results in their fine and manly forms, and exemption from mental and physical diseases, as has been stated.

"The savage infant, like the offspring of the brute, breathes the natural and wholesome air, generally from instinct, closes his mouth during its sleep; and in all cases of exception the mother rigidly (and *cruelly*, if necessary) enforces Nature's law in this manner explained, until the habit is fixed for life, of the importance of which she seems to be perfectly well aware. But when we turn to civilized life, with all its comforts, its luxuries, its science, and its medical skill, our pity is enlisted for the tender germs of humanity, brought forth and earressed in smothered atmospheres which they can only breathe with their mouths wide open, and nurtured with too much thoughtlessness to prevent their contraacting a habit which is to shorten their days with the eroup in infancy, or to turn their brains to idiocy, lunacy, and their spines to curvatures—or in manhood, to sleep to fatigue and the nightmare, and their lungs and their lives to premature decay.

"If the habit of sleeping with the mouth open is so destructive to the human constitution, and is caused by sleeping in confined and overheated air, and this under the imprudent sanction of mothers, they become the primary causes of the misfortune of their own offspring; and to them, chiefly, the world must look for the correction of the error, and, consequently, the be-

faction of mankind. They should first be made acquainted with the fact that their infants don't require heated air, and that they had better sleep with their heads out of the window than under their mothers' arms—that middle-aged and old people require more warmth than children, and that to embrace their infants in their arms in their sleep during the night, is to subject them to the heat of their own bodies; added to that of feather beds and overheated rooms, the relaxing effects of which have been mentioned, with their pitiable and fatal consequences."

"In natural and refreshing sleep, man breathes but little air; his pulse is low; and in the most perfect state of repose he almost ceases to exist. This is necessary, and most wisely ordered, that his lungs, as well as his limbs, may rest from the labour and excitements of the day.

"Too much sleep is often said to be destructive to health; but very few persons will sleep too much for their health, provided they sleep in the right way. Unnatural sleep, which is irritating to the lungs and the nervous system, fails to afford that rest which sleep was intended to give, and the longer one lies in it, the less will be the enjoyment and length of his life. Any one waking in the morning at his usual hour of rising, and finding by the dryness of his mouth, that he has been sleeping with the mouth open, feels fatigued, and a wish to go to sleep again; and, convinced that his rest has not been good, he is ready to admit the truth of the statement above made.

"There is no perfect sleep for man or brute, with the mouth open; it is unnatural, and a strain upon the lungs which the expression of the countenance and the nervous excitement plainly show.

"Lambs, which are nearly as tender as human infants, commence immediately after they are born to breathe the chilling air of March and April, both night and day, asleep and awake, which they are able to do, because they breathe it in the way that Nature designed them to breathe. New-born infants in the savage tribes are exposed to almost the same necessity, which they endure perfectly well, and there is no reason why the opposite extreme should be practised in the civilized world, entailing so much misfortune and misery on mankind."

"It requires no more than common sense to perceive that mankind, like all the brute creations, should close their mouths when they close their eyes in sleep, and breathe through their nostrils, which were evidently made for that purpose, instead of dropping the under jaw and drawing an over draught of cold air directly on the lungs, through the mouth; and that in the middle of the night, when the fires have gone down and the air is at its coldest temperature—the system at rest, and the lungs the least able to withstand the shock.

"For those who have suffered with weakness of the lungs, or other diseases of the chest, there needs no proof of this fact; and of those, if any, who are yet incredulous, it only requires that they should take a candle in their hand, and look at their friends asleep and snoring; or with the nightmare (or without it), with their eyes shut and their mouths wide open—(Fig. 1.) the very picture of distress, of suffering, of idiocy, and death; when Nature designed that they should be smiling in the soothing and invigorating forgetfulness of the fatigues and anxieties of the day, (Fig. 2.) which are dissolving into pleasurable and dreamy shadows of 'realities gone by.'

"Who ever waked out of a fit of the nightmare in the middle of the night with his mouth strained open and dried to a husk, not knowing when, or from where, the saliva was coming to moisten it again, without being willing to admit the mischief that such a habit might be doing to the lungs, and consequently to the stomach, the brain, the nerves, and every other organ of the system?"

The habit of keeping the mouth open is also regarded as injurious to the teeth; he says:—

"The Statistics of England show an annual return of "25,000 infants, and children under five years of age, that die of *convulsions*." What causes so probable for those convulsions as teething and the croup; and what more probable cause for the *unnatural* pains of teething and the croup, than the *infernal* habit which I am condemning.

"At this tender age, and under the kind treatment just men-



Fig. 1.

tioned, is thoughtlessly laid the foundation for the rich harvests which the dentists are reaping in most parts of the civilized world. The infant passes two-thirds of its time in sleep, with its mouth open, while the teeth are presenting themselves in their tender state, to be chilled and dried in the currents of air passing over them, instead of being nurtured by the warmth and saliva intended for their protection, when they project to unnatural and unequal lengths, or take different and unnatural directions, producing those disagreeable and unfortunate combinations which are frequently seen in civilized adult societies, and oftentimes sadly disfiguring the human face for life.

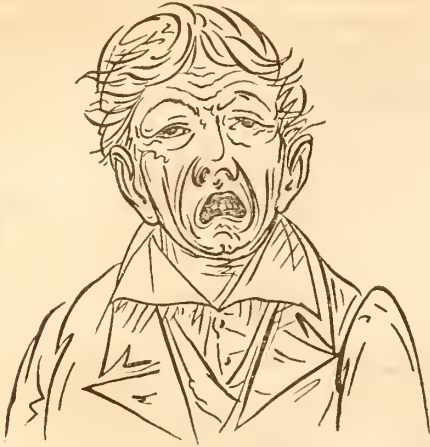


Fig. 2.

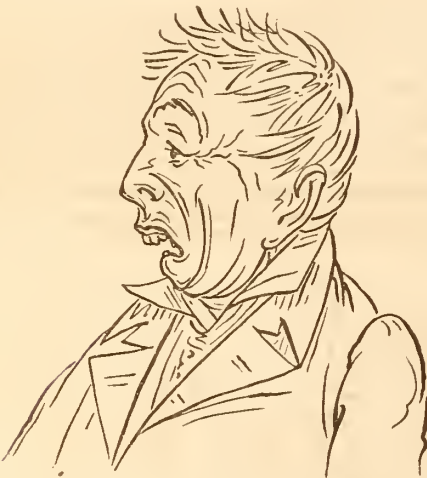
"While there are a great many persons in all civilized societies who adhere to the designs of Nature in the habits above referred to, how great a proportion of the individuals of those societies carry on their faces the proofs of a different habit, brought from their childhood, which their constitutions have so far successfully battled against, until (as has been said) it becomes like a second Nature, and a matter of necessity, even during their waking hours and the usual avocations of life, to breathe through the mouth, which is constantly open; while the nasal ducts, being vacated, like vacated roads that grow up to grass and weeds, become the seat of Polypus and other diseases.

"In all of these instances there is a derangement and deformity of the teeth, and disfigurement of the mouth, and the whole

face, which are not natural; carrying the proof of a long practice of the baneful habit, with its lasting consequences; and producing that unfortunate and pitiable, and oftentimes disgusting expression, which none but civilized communities can present.



"Even the Brute creations furnish nothing so abominable as these; which justly demand our *sympathy* instead of our *derision*. The faces and the mouths of the wolf, the tiger, and even the hyena and the donkey, are agreeable, and even handsome, by the side of them.



"What physician will say that the inhalation of cold air to the lungs through such mouths as these, and over the putrid secretions and rotten teeth within, may not occasion disease of the lungs and death? Infected districts communicate disease—infection attaches to putrescence, and no other infected district can be so near to the lungs as an infected mouth."

* * *

"The American Indians call the civilized races '*pale faces*' and '*black mouths*,' and to understand the full force of these expressions, it is necessary to live awhile among the Savage races, and then to return to civilized life. The Author has had ample opportunities of testing the justness of these expressions, and has been forcibly struck with the correctness of their application, on returning from Savage to Civilized society. A long familiarity with red faces and closed mouths affords a new view of our friends when we get back, and fully explains to us the horror which a savage has of a '*pale-face*,' and his disgust with the expression of open and *black mouths*."

"No man or woman with a handsome set of teeth keeps the mouth habitually open; and every person with an unnatural derangement of the teeth is as sure seldom to have it shut. This is not because the derangement of the teeth has made the habit, but because the habit has caused the derangement of the teeth."

[To be continued.]

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, April 8, 1861.]

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

DISCUSSION ON MORBUS COXARIUS.

(Continued from page 280.)

DR. GARDNER moved that inasmuch as Drs. Bauer and Davis were present, they be allowed to make any remark upon the subject for discussion they saw fit.

DR. DAVIS accordingly said:—I will take the opportunity of making a few remarks, which were not brought out by Dr. Post. It will be recollected that in a paper which I read last September, I endeavored to prove that a joint would be destroyed, that is the cartilage or bone, simply during a state of rest, by the natural contraction of the muscles. That principle lies at the foundation of my treatment. As to the pathology of the disease, I will not attempt anything further, after what has been said by Dr. Post. In relation to the wooden splint spoken of by Dr. Post, I would simply remark that it was used by me before the stone splint, but owing to the inefficient manner of obtaining extension, I abandoned it. In reference to the last-mentioned plan, devised by me, and spoken of by Dr. Post, I would also state that the modification differs from Dr. Sayre's, in that, instead of a ratchet and key, the key is the wheel, the splint itself being corrugated. The instrument differs from Dr. Sayre's in another important respect, i. e., its weight, it being four or five times lighter than his. There will be no difficulty in applying the splint to the femur alone, excepting in young children with fleshy flabby muscles. In adults it is much to be preferred. There is another point: after you have applied the splint and the pain on motion or rotation has entirely disappeared, it is very necessary to continue the treatment still longer, otherwise, by allowing the patient to use his limb, an abscess may form, and you may lose the joint. It appears, though the parts were healed, but that they were not able to endure the labor thrown on them by exercise, and the joint consequently inflame. I would compel the patient to wear the apparatus for months afterwards.

DR. BAUER coincided in general with the views of the gentleman who had opened the discussion; in some points, however, he differed materially. That the disease could originate in the cancelli he was satisfied of, as he was also that the majority of cases started in the synovial membrane. He had freely opened nineteen hip-joints and thoroughly examined them with reference to their pathological condition; he had also performed and assisted in performing eleven excisions of this joint, and with few exceptions met with partial or total destruction of the ligamentum teres in advance of the other structures. This fact seemed to demonstrate to his mind that the synovial fold covering the ligament, and the superabundance of investing cellular structure were the more susceptible anatomical elements for the inflammatory process. Dr. Post had admitted effusion into the joint as one of its pathological conditions, yet this seemed incompatible with the advanced opinion that the disease originated in the bony structure, unless a mere incidental discharge of an abscess of the osseous structure into the articular cavity was presumed, which at best would apply to very few cases. In this second stage of the disease, Dr. Post attributed the peculiar deformity in a somewhat unsettled way to either effusion or muscular contraction. Dr. Bauer would not deny that moderate contractions of muscles made the appearance already at this stage of the disease and actually gave rise to severe suffering of the patient, yet they were effectually controlled by the hydraulic pressure of the effused liquid in the joint. The muscles chiefly contracted were the adductors of the thigh, while the malposition was abduction, which fact alone seemed to settle all doubts on

this point. Again, the simple puncture of the joint, the removal of the effused material, and the immediate correction of the deformity, are in themselves undeniable proofs that the hydraulic pressure is the exclusive cause of malposition. The fallacy of the position taken by Dr. Post became still more obvious in his pathological commentary on the third stage. He ascribed to the same cause, that is muscular contraction, a malposition of the extremity, which is the direct opposite of that of the second stage. The same causes are expected to produce the same results. The logic was much more acceptable, to infer from different effects, different causes. In the third stage, muscular contraction indeed gave rise to the malposition of the extremity. The division of the muscles was therefore the only remedy of the deformity. In reference to the treatment, Dr. Bauer had introduced some surgical maxims which he still considered rational, appropriate, and effectual. His wire breeches had as yet found no equal; they were still the best and most convenient apparatus to secure rest and position for an affected hip-joint. They were indispensable also in the after treatment of exsections. In the treatment of joint diseases in general, rest, position, division of contracted muscles and extension lead to better results than the conjoined constitutional and local treatment hitherto adopted. Where effusion was marked and of sufficient extent to warrant puncture, it should be performed. These remedies would secure comfort to the patient, and exercise a certain control over the disease. But rest, so desirable a remedial agent at one period, has its limitation, beyond which it would do mischief. He had not learned it from Dr. Davis this evening, that prolonged repose of a joint gave rise to some changes in the articular tissues which were highly prejudicial to locomotion, and he felt persuaded that the distinguished surgeons then present would neither treat the remark as a novelty. As long ago as six years, he had frequently discussed this question with Dr. Sayre, who had always insisted upon passive motions as an essential constituent remedy in joint diseases. But when these motions had been attempted, they had invariably aggravated the disease, and on that account Dr. Bauer had dispensed with them as objectionable and injurious. That there was still something wanting to perpetuate the results attained by rest, he and still more Dr. Sayre had become conscious. At any rate, he himself had never felt satisfied that something more might not be done in the way of surgical appliances, especially with the view of enabling the patient to walk.

About eighteen months ago, Dr. Sayre, for the first time, had informed him that Dr. Davis had succeeded in constructing an instrument for the above purpose, which, with some improvements and alterations, would admirably answer, and on the strength of Dr. Sayre's recommendation had used it in a good number of cases with the most satisfactory results. Dr. Bauer did not think that the principle embodied in this instrument, known as "Davis's or Sayre's improved hip splint," was entirely novel. Dr. Buchring, and subsequently Prof. Langenbeck, of Berlin, had combined motion with extension at least twelve years ago, but they only used them in *old* hip troubles, whereas the new instrument was admirably adapted to control and alleviate progressive hip disease. He could not help regretting that Dr. Davis should have withheld from the use of the profession, and the comfort of so many sufferers, such an excellent appliance, and he thought that Dr. Sayre deserved the credit of having rendered it accessible to every surgeon. At any rate he could but join in the general approval which the instrument had received at the hands of the profession, and he for one was willing to accord the honor to whom it was due.

To the implication of Prof. Post, that the wire breeches of Dr. Bauer were identical with the *grand appareil* of Prof. Bonnet of Lyons, he had to take exception. Both apparatus had no other similitude than the material of which they were made, namely, wire. Bonnet's apparatus had been constructed with a view to keep the patient in a straight posture, and to lift him in a horizontal position; it is bulky

and very expensive; nor does it provide for extension and counter-extension as in his apparatus. The principle of the wire breeches had been borrowed from Hagedorn-Dzondi's splint, which he had used previously in the treatment of hip disease. However, he considered it rather an honor to be placed in proximity to that distinguished French surgeon, though he should refute any implication that might admit the construction of plagiarism.

DR. BATCHELDER.—It has happened to me that I have seen a good many cases of this disease during my professional life. It appears to me that there are several varieties, and that it requires some means of distinguishing between them. Now, sir, I have seen frequently cases in which it was difficult, for me at least, to determine what part of the joint was affected. For instance, the disease may commence in the head of the bone, or in the acetabulum. Now, how do we ascertain this point? We find that the bone has a sensation of its own. The bones are only acted upon and injured by pressure. You can occasion on yourselves the peculiar ache which is the result of pressure upon bone, by applying your finger firmly against the cranium for a little time. The same thing is done by the surgeon when he pushes the head of the bone firmly into the acetabulum—the ache is produced. When I was in the habit of finding that sensation in that way, I invariably set it down that the bone alone was diseased, for in cartilage no such pain is produced. Now this pain is produced by pressure of the two bones, one upon another, occasioned by muscular contraction. Every time the patient steps upon the limb and forces the head of the bone into the acetabulum, then pain is produced. After the disease has gone on to a certain extent, the cartilage will become detached, and every motion of the limb produce pain. Again, when the bone is diseased, and you make extension, you relieve the pain; and this fact, by the by, shows conclusively, to my mind, the necessity of the application of extension in the treatment of the disease. Now there is another mode in which the disease commences, and that is in the ligaments of the joints. And when this occurs, the opposite effects are produced from what we have seen when the bone was diseased; by pressing the head of the acetabulum upwards, instead of producing pain, you rather give relief; if you make *extension*, on the other hand, and put the ligament upon the stretch, you give pain. Another method of distinguishing whether ligament is concerned or not, is by making pressure on the anterior part of the joint on the outside of the femoral artery; there you will produce, almost invariably, considerable pain. The rule with me, as far as treatment is concerned, is, that whenever the joint is no warmer than natural, there is no need for any local treatment; if, however, there be increased warmth, together with tenderness, local depletion is called for. In regard to the method of making extension as a means of treatment, I have had no experience. The splint, however, commends itself by the good results of its application to the attention of every surgeon.

DR. BUCK.—I will merely say in regard to this particular mode of treatment introduced by Dr. Davis, that it is in constant use at the St. Luke's Hospital, and has been for nearly a year. We have also several cases in progress in children. We have always regarded it as an admirable mode of treatment, and we see the best effects from it. It has been borne with a great deal of comfort. Those who are brought in in the acute stage, scarcely allowing you to touch them, after the application of the weight and pulley for twenty-four or forty-eight hours, are almost entirely relieved of pain. The effect of this relief upon the patients is to improve their general condition. After a certain time the splint is applied, and the patients are then allowed to be up. The treatment is being fully tested there with satisfactory results.

DR. SAYRE asked if the splint had ever been used for the purpose of overcoming deformity after the disease had been fully arrested.

DR. BUCK stated that he was not aware that it had been.

The same question being repeated to Dr. Davis called forth the following recital from that gentleman: I was called to a case some time since, of five years' standing, in which there was three and a half inches shortening. There was an abscess on the thigh, which I should think would hold at least a pint. I applied extension, and brought the limb down three inches. The abscess, I would say, was entirely absorbed. The case, however, is not yet finished. I would remark, in reference to some other points, I have strong reason to hope that if this mode of treatment is adopted in the first stage of the disease, whether the ligament or cartilage be involved, the joint will be placed in the best possible condition for a rapid recovery. I have now a case under treatment in whom this point can be illustrated. A young miss went to school on Wednesday, and walked thither as well as she ever did. While at school she began to feel uncomfortable about the hip, and she finally found herself unable to walk home, and was compelled to call a carriage. That night she could not sleep. I did not see her for ten days; then the joint was swollen, exceedingly sensitive, the diseased limb was lying across the other, and the night before I saw her she had taken eight grains of morphia without producing sleep. I saw her, applied extension, and brought down the limb. Before I applied the weight, and while I was making extension with my hand, she fell asleep, and when the weight was attached, I found it impossible to arouse her to give me a correct answer. She slept after this soundly for several hours. The patient went on well from that time. The local treatment was active in its character, and in about two weeks she was able to attempt motion of the joint, and in three weeks could sit up. In reference to another point as diagnostic of disease of the ligament—she would not allow you to put the weight of your finger on the front of the joint without screaming, and yet extension relieved her. I think that even this case, provided that be a diagnostic mark, proves that the employment of extension is beneficial. Extension does not draw upon the ligament; it relieves it. If extension is kept up from the beginning, I think you will never find effusion into the joint as an after consequence. Still further, even if the joint be destroyed by extension, you prevent the disastrous results which sometimes occur, viz. perforation of the acetabulum. I think if this treatment is pursued from the commencement, that the results will be beyond the expectations of every one.

(To be continued.)

Medical News.

ERRATUM.—Page 256 (Todd on Cyanosis) first column, seventeenth line, read 16 ounces instead of 66.

PERSONAL.—The Hon. Dr. LORRIN is at present in the city making preparations to join the Ulster Co. Volunteers as surgeon. Dr. CRISPELL of Rondout is to be his associate. Drs. LITTLE and TOTTEN have been appointed surgeons to the California Regiment.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—The Bellevue Hospital Medical College has organized with the following faculty:

ISAAC E. TAYLOR, M.D., President and Professor of Obstetrics.
 AUSTIN FLINT, M.D., Professor of Theory and Practice of Medicine.
 J. R. WOOD, M.D., Prof. Operative Surgery and Surgical Pathology.
 BENJ. W. MCCREADY, M.D., Prof. Materia Medica and Therapeutics.
 FRANK H. HAMILTON, M.D., Prof. Military Surgery and Pathology, and Accidents to Bones.
 GEO. T. ELLIOTT, M.D., Prof. Obstetrics.
 LEWIS A. SAYRE, M.D., Prof. Orthopædic Surgery.
 R. O. DOREMUS, M.D., Prof. Chemistry.
 J. W. S. GOULEY, Prof. Anatomy and Microscopy.
 STEPHEN SMITH, M.D., Prof. Principles of Surgery.
 B. FORDYCE BARKER, M.D., Prof. Obstetrics.
 A. B. MOTT, M.D., Prof. Surgical Anatomy.
 AUSTIN FLINT, JR., M.D., Prof. Physiology.
 CHARLES PHELPS, M.D., Demonstrator of Anatomy.

THE N. Y. MEDICAL ASSOCIATION FOR THE SUPPLY OF LINT, BANDAGES, ETC., TO THE ARMY.—All contributions of articles

mentioned in the following list will be received at the rooms of the Association, where they will be properly assorted and packed, and whence they will be distributed to the Medical Officers of the different Regiments for field service, or to the general Hospitals established for the accommodation of the Army.

It is desirable that the lint should be packed in boxes of uniform size, and the Association will supply such boxes at the cost price to all who apply for them, on the written requisition of any member of the Executive Committee.

Models and Patterns of all the articles mentioned in the appended list will be kept on exhibition for examination and reference at the rooms of the Association, and all necessary instructions will be given for their preparation.

A number of articles will be found in the list of Hospital supplies that must be purchased from the manufacturers, such as—Field Stretchers, for removing the wounded from the field of battle, Hospital Knapsacks, Lanterns, Wax Tapers, Bed-pans, Urinals, etc. The purchase of these articles, it is recommended, should be confined as far as possible to the Association.

Contributions in money for this purpose are earnestly solicited, and may be inclosed to the Treasurer, Dr. JACOB HENSEN.

List of Hospital and Field Supplies for the Sick and Wounded.

1. BANDAGES.—Assortment and proportionate numbers of each variety required:—
 - 1 dozen, 1 inch wide, 1 yard long.
 - 2 dozen, 2 inches wide, 3 yards long.
 - 2 dozen, 2½ inches wide, 3 yards long.
 - 1 dozen, 3 inches wide, 4 yards long.
 - 1 dozen, 3½ inches wide, 5 yards long.
 - 1 dozen, 4 inches wide, 6 yards long.
2. Lint—Scraped and ravelled in equal proportions.
3. Old linen and cotton cloth, without selvedge or seams, for compresses.
4. Ring pads and cushions.
5. Cotton Batting and Cotton Wadding; Fine Flax and Sponges.
6. Red Flannel in the piece.
7. Bookbinders' Board for Splints; pieces 18 by 4 inches.
8. Saddlers' Silk for Ligatures; Wax, Pins, and Small Pin Cushions.
9. Sewing Needles, assorted in cases; Linen Thread, Tape, and Scissors.
10. Adhesive Plaster, Camel-Hair Pencils, Oiled Silk, Oiled Muslin, India Rubber and Gutta Percha Cloths, in the piece.
11. Wrapping Paper.
12. Cotton Shirts, Drawers, and Slippers.
13. Sheets, 4 feet wide and 6 feet long.
14. Bed-Sacks, 3 feet wide and 6 feet long.
15. Pillow-Sacks and Towels.
16. Hospital Knapsacks.
17. Field Stretchers.
18. Eye-Shades of Green Silk.
19. Lanterns.
20. Bed Pans and Urinals, Metallic ones preferred.
21. Dressed Sheep-Skins.

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Valentine Mott, M.D., LL.D., President, No. 1, Gramercy Park; John W. Greene, M.D., Secretary, 13th st. 7th av.; Jacob Hensen, M.D., Treasurer, No. 72 9th st.

The Executive Committee consists of thirty-five prominent physicians, Dr. E. L. Beadle being Chairman and Dr. Draper Secretary. Their Rooms and Dépôt are at the Spangler Institute, No. 7 Union Square.

A NEW MILITARY SEDAN.—Dr. J. R. WOOD has contrived a new sedan for the conveyance of wounded soldiers from the battle-field. It consists of stout canvas, connected to two end pieces of steel by ropes, with side loops, through which the muskets may be passed as handles. By its lightness, compactness, and strength, it must commend itself to every army surgeon.

Original Lectures.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM,

DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE.

BY

M. GONZALEZ ECHEVERRIA, M.D.,

OF PARIS,

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LECTURE I.

GENTLEMEN: In nervous, as in all other diseases, there is a cause giving rise to a modification, in some cases impossible to detect, but always expressed by the symptoms. It is upon these latter that I propose specially to dwell in these lectures. Confusion in pathology of the nervous system depends a great deal on the apparent similitude of so many distinct affections conducing to erroneous diagnosis and overrated treatment, and consequently creating the belief that all is mystery with regard to those affections, and that science is but little advanced on the subject. Happily such is not the case; all is not done, but still there has been progress achieved and considerable change made in the treatment of nervous diseases. Physiology constantly throws new light on the functions of the nervous system, explains what occurs in the pathological state, and symptoms once well understood lead to rational and successful treatment.

It may be well to make some physiological remarks before entering upon pathological details. A central part, the encephalon and the spinal cord, and a peripheric one, the nerves, compose the nervous system, having altogether under its influence functions of sensibility, motricity, and nutrition. Its integrity is requisite to normal exercise in each of these functions, and to each pathological state correspond changes either in the centre or in the peripheric parts. Normal sensibility involves: a faculty of receiving the impressions or *impressibility*—transmission through a nerve; and *perceptivity*, or faculty of perception proper to the encephalon.

Motricity cannot exist without: 1st, An incitation, probably taking place in the grey matter of the centres (encephalon, spinal cord, ganglia), and which may also exist in some of the nerves; 2d, A transmission through nervous channels; and 3d, A contraction produced in the organs. There are two kinds of motricity—the voluntary and the involuntary, or of organic life. If the mode of innervation controlling nutrition is *analysed*, it shows an impression and its transmission without any perception whatever, or rather one reduced to involuntary motricity; it being understood, of course, that this allusion is made entirely to reflex actions. If any of the different acts above mentioned be lost or altered, the corresponding function becomes impaired. Let, then, each of these pathological states at once be separately examined. Loss of sensibility or of movement constitutes *paralysis*, and it may be *complete* or *incomplete*, *general* or *partial*; the latter comprehending *hemiplegia*, or paralysis in one side of the body, and *paraplegia*, or palsy of the lower extremities. There is also a local paralysis, generally due to pressure or injury upon a nerve. Loss of sensibility is called *anæsthesia*, the contrary to *hyperæsthesia* or exaggerated sensibility. Both coexist with loss of movement, and the former, as stated by Dr. Brown-Séquard, is never alone in spinal diseases, and is in such cases a symptom of alteration in the grey matter.

What is already advanced in relation to sensibility refers to general sensibility, and under that head are embraced—*tactile sensibility*, that of *temperature*, *painful impressions*, and *muscular activity*. They may or may not be affected separately from each other. The loss

of painful sensations is called *analgesia*, first described by Dr. Beau, and in most cases accompanied by anæsthesia of the touch, both being frequent symptoms in the numerous affections classed under the title of *neurosis*. Analgesia must, however, be considered as a sign of profound derangement in the nervous system; it is a common symptom in the advanced stages of ataxic fevers; in typhoid it lasts with the disease and even during convalescence. It may be observed in nervous delirium after surgical operations or serious wounds; in insanity, hypochondria, dyspepsia, anæmia, intoxication by lead, in various cachexiæ, and even after neuralgia. Anæsthesia is very seldom general; it frequently appears under hemiplegic or local forms, and with diminished temperature in the affected parts. What has just been said about analgesia is likewise applicable to this pathological state. Organic derangements in the nervous centres, *neurosis*, chlorosis, anæmia, albuminuria, diphtheria, typhoid fever, dyspepsia, various cachexiæ, and intoxication, may produce anæsthesia. Dr. Tuerk, of Vienna, has observed that apoplexy and softening in or near the optic thalami, determine marked anæsthesia in the opposite side of the body, appearing as if it were a peculiar relation between these morbid sources and hemiplegic anæsthesia.

Artificial anæsthesia by Dr. Jackson of Boston, is one of the greatest improvements achieved in modern medicine. Ether and chloroform were formerly employed for such an important purpose, but recently that singular state of *hypnotism* discovered and so much studied by Braid, has increased the number of anæsthetic means. Indeed, insensibility is produced after hypnotism, as observed not only by Braid, but also by Carpenter, Todd, Azam, Velpeau, Follin, Broca, and other surgeons; but up to the present time the effect has been very uncertain and limited, and therefore inferior to that of ether and chloroform. The same opinion may be expressed with regard to local anæsthesia, tried extensively by Aran and Hardy of Dublin, and only successful when the agent was applied to the mucous membranes or to the bare dermis. Dr. Guersant, of the Children's Hospital in Paris, has observed that ten grains of bromide of potassium taken *fracta dosis* during the day, bring on a state of anæsthesia more or less complete in the neck and pharynx, which may be taken advantage of in cases of children requiring the performance of operations in those organs, and more especially in that of staphylo-raphia.

The *sense of muscular activity* was demonstrated and its paralysis first studied by Dr. Landry of Paris. Ideas of form, dimension, weight, consistence, and the various attitudes of the human body, are performed by that sense, altogether different from motricity. This and nutrition are impaired only in advanced paralysis of the former. Irregularity in the movements, with no co-ordination whatever, and the necessity of looking at the limbs for the purpose of moving them, are the principal features of this peculiar disease—chronic in its character, and progressive in its march. Occasionally the affection appears in the extremities and extends towards the trunk, being always in its last stage accompanied by vertigo, amaurosis, anæsthesia, and paralysis of movement. But a very few post-mortem examinations have been made, so that the causes of this paralysis remain undecided. Dr. Landry once found an induration in the posterior columns and in the close grey matter of the spinal cord; but in other cases no material alteration has been detected. It may be that hereditary influence is among the causes. An opportunity not long since was presented to me of observing the case of two adult brothers laboring under this affection, which had originally appeared in their youth. The elder was an instance of a general advanced state of paralysis; most of the muscles were atrophied after long inactivity, the trunk was bent like an arch from its own weight, he had no power to move his limbs, and occasionally cramps in their muscles. The younger brother was affected in a less degree, the disease existing in the lower limbs. Neither presented troubles of the

digestive organs, and the generative functions of the latter were not particularly altered.

After treating of diminished sensibility, I pass to the contrary state, hyperæsthesia, always accompanied by increased temperature. It seldom appears under hemiplegic forms, and frequently, as remarked before, coexists with loss of movement, which generally follows it as well as anæsthesia. Hyperæsthesia may exist superficially or deeply, and its characteristic feature is that it never remains localized. It is a proved fact, by physiological experiments and pathological cases, that alteration or injury to the cerebellum or to the posterior columns of the spinal cord produce hyperæsthesia in the corresponding side of the body and anæsthesia in the opposite. The alteration in the posterior columns must not be extensive, as otherwise there may be a loss, more or less complete, of their faculty of reflex action devolving on the posterior columns.

Superficial hyperæsthesia is a common symptom in hysteria: the sensible spots in the skin and joints of hysterical women are nothing but hyperæsthesia limited to a local sensitive nerve. In spinal irritation, general impressibility is increased to a high degree, hyperæsthesia existing then even in nerves of special sensibility. Deep hyperæsthesia is observed in the beginning of eruptive and ataxic fevers causing pain in the limbs and loins, during cholera, and especially in hysteria.

As regards alteration in motricity, it should be remarked that paralysis of movement affects the same forms as that of sensibility; therefore, the important point to be examined is, whether there be any relation between the seat of the paralysis and its morbid source in the nervous centres. It would be diverging too much from the subject under consideration to enter into physiological details concerning the structure of the latter. Let it be borne in mind that the spinal cord is the place of decussation for sensitive impressions, and the lower part of the medulla oblongata (the pyramids) that of voluntary motor conductors. Therefore, alterations or injury in a lateral part of the spinal cord will be followed by paralysis of movement and hyperæsthesia in the same side, and loss of sensibility in the opposite. In the lower part of the medulla oblongata there will be the same symptoms as regards sensibility, with paralysis of movement in both sides. Above the pyramids hyperæsthesia will be in the side of the alteration, with loss of sensibility and movement in the opposite. In alternate hemiplegia, when there is paralysis in the side of the face contrary to that affected in the body, the lesion exists always in the pons varolii, and principally in the opposite side to the palsied limbs, as confirmed by Gubler and other physicians. In another lecture I will consider the important question of convulsions and their semeiological value. I will not enter very elaborately into what concerns troubles in the function of nutrition devolved on the sympathetic nerves. Dilatation in the capillary vessels, and after it increased heat in the organs, are signs of paralysis in these nerves. Their irritation produces contraction in the vessels, diminution of blood, and coldness. It would be impossible to observe derangements in sympathetic nerves not interfering with any of the other nervous functions. Indeed, it seems as though the connexion between the functions of nutrition and those of sensibility and motricity was greater than that existing between each of the latter. So it is that atrophy always comes after paralysis, either of sensibility or movement, and that disorders of secretion and absorption are necessary consequences of irritation in either of those functions.

Hitherto it has been only a question of organic alteration deranging the integrity of the nervous system; but on the next occasion I shall have to study that peculiar and important kind of reflex paralysis due to peripheric irritations without material change in the nervous centres. I now proceed to examine the semeiological value of the various kinds of paralysis; and I do so because paralysis is not a morbid entity, but a symptom of several morbid states, which, however, leads to certain diagnosis.

Marshall Hall imagined a distinction between cerebral and spinal paralysis. According to his theory, in the former no influence of the brain, no spontaneous or voluntary motion is observed, but muscular irritability is augmented, the brain no longer being its exhauster through acts of volition. In spinal paralysis, on the contrary, the influence of the spinal cord is removed, and there is little or no muscular irritability at all, the spinal cord being the special source of muscular irritability and contractions. It must be added, that Marshall Hall employed electricity to determine the state of muscular irritability, and that his theory has been successfully opposed by Pereira, Copland, Todd, Duchenne de Boulogne, and latterly by Althaus, whose observations coincide with those of Todd, mentioned in the three following classes. In some of the cases there was increased muscular irritability coexisting with rigidity in the muscles of the palsied limbs. In another class there was little or no contraction at all, the muscles being atrophied; and in a last class, corresponding to cases of apoplexy in healthy adults, there was no change between the contraction of the healthy and the paralysed muscles.

Notwithstanding the correctness of the above facts, it appears certain from interesting researches made by Dr. Brown-Séquard, "that muscular irritability never entirely disappears in parts deprived only of the cerebral action, and that the absence of reflex actions as a means of diagnosis between the cerebral and the spinal paralysis, has a much greater value than the degree of muscular irritability."

General paralysis is not a common symptom; it appears especially after commotion in the brain attaining the voluntary muscles—at once distinguishing itself from syncope or paralysis in the muscles of organic life. General paralysis, if a long time persistent, is followed by asphyxia after paralysis in the muscles of the throat, but ordinarily the brain recovers its influence—and motricity is regained. General paralysis is a most valuable symptom of commotion in the brain; when accompanied by delirium, it shows that inflammation takes place in the brain and is a sign of extreme gravity. In simple concussion of the brain, it will be observed that paralysis does not immediately follow, but appears soon after, and is never general. If due to eclampsia, general paralysis is preceded by convulsions in all the body, and a series of symptoms impossible to mistake.

Fulminant apoplexy very seldom occasions general paralysis. If the hemorrhage is considerable in the base of the encephalon and specially located in the pons varolii, and in the ventricles, there is general paralysis; excepting in this case, cerebral hemorrhage is always accompanied by hemiplegia. If blood is effused in the ventricles or in the cavities of the arachnoids, a contraction in the palsied limbs will be constantly observed.

There is a peculiar kind of general paralysis attending insanity which is very easily distinguished. It never has a sudden commencement; it begins with a loss of power over the co-ordination of muscular action and in the generative functions, anæsthesia more or less complete, loss of excitatory sensibility, tremor of the lips, difficulty in protrusion of the tongue, and speech always thick and sometimes modified to only a few words. The legs lose their power before the arms, and walking is without consentaneous action. The mind becomes impaired from the beginning or after mania, seldom of furious character; sometimes there is dementia, and these disorders are marked symptoms at an early stage. In the latter period paralysis extends itself to the muscles of organic life, digestion is troubled, power over the sphincter lost, contractility in the iris is imperfect, there are sloughs on the sacrum, nates, and even on the tongue, and the patient ultimately dies, sometimes suddenly choked whilst taking food, which he cannot swallow. At post-mortem examination, with the disease is found a variable degree of alteration in the encephalon, being frequently a softening in the grey matter, the white remaining infiltrated with blood or serosity.

The relations have been exposed between the side of the

paralysis and the seat of alteration in the nervous system; therefore their repetition will be avoided in establishing the diagnostic value of hemiplegia. Mention has, a moment since, been made of hemiplegia as a symptom of cerebral hemorrhage, but it may likewise exist after concussion or softening of the brain, after fractures or external violences of the skull, in cases of tumor in the brain, and without any lesion whatever in the nervous centre. To this latter case reference will be made when speaking of reflex paralysis.

Hemorrhage in the brain, not occasioned by external violence or fracture, is always a consequence of cerebral congestion. Under these circumstances the paralysis may appear in one side of the body or face, or simply in one of the limbs. At other times in its stead convulsive movements are observed in those different parts. But the cerebral congestion causing the preceding states should always be manifested. A sudden loss of intelligence, of movement and sensibility, with rough breathing, quick and hard pulse, dilatation of the pupils, paralysis of the sphincters, and therefore unconscious passing of urine and feces, such are the striking symptoms of congestion of the brain. It is not uncommon to observe this state followed by powerful convulsions and profuse perspiration all over the body, together with quickness of pulse and breathing. It may happen, in consequence of the extent of the congestion, that the paralysis attending it interferes with only one of the nervous functions; but the former symptoms once subsided, be sure that hemiplegia with a variable degree of trouble in speech, is a pathognomonic sign either of localized inflammatory congestion in the opposite side of the encephalon, or existence of a clot in the same place. In this latter instance it will often be remarked, in the beginning of the paralysis, that the limbs affected are loose and relaxed, and that afterwards they exhibit a rigidity frequently almost tetanic. This rigidity may be produced after irritative incitation by the cicatrizing or rather disappearing clot, or likewise after chronic inflammation in the morbid parts. Contraction, therefore, in hemiplegia attending cerebral hemorrhage must be carefully cared for; and if whilst standing there be a loss of consentaneous action in the muscles, and the mind becomes irritable and impaired, it is certain that inflammation is produced in the brain.

Hemorrhage, nevertheless, may be considerable in the brain without any symptoms whatever of paralysis. In April, 1859, Dr. Marjolin presented to the Chirurgical Society of Paris the case of a girl who died two weeks after suffering a fall from no great height. Inflammation in one foot and doubtful symptoms of purulent, or rather of typhoid fever, with intermittent subdelirium, succeeded the accident. There was no contraction or paralysis in any of the limbs, and the mind remained perfectly sound during the lucid moments. At the post-mortem examination there was found a considerable effusion of blood in the ventricles and in the substance of the brain, softened and infiltrated with pus around the hemorrhage, presenting all the characters of a traumatic one. This is not the only instance of destruction of the brain unattended by paralysis; others are reported in science, and the same Dr. Marjolin observed in a man a case similar to the above. A hard blow on the skull produced instantaneous loss of consciousness, but the subject recovered himself in a moment and continued perfectly well, attending to his business—dying, however, a month later, after having for some time previously simply complained of headache. The autopsy disclosed the existence of a fracture of the skull, with a piece of bone and portions of the dura mater penetrating into the left ventricle, and a purulent softening in the middle part of the left cerebral hemisphere. The late learned physiologist, Berard, saw a man living two days, with perfect intelligence and memory, notwithstanding the brain had been considerably destroyed by the explosion of a mine. I had myself the occasion of seeing, about two years ago, a patient at the clinic of the celebrated Dr. Bouisson of Montpellier. The man had a

cancrioid in the left side of the forehead, which destroyed, after the integuments and bone, a considerable portion of the left anterior cerebral hemisphere. The brain laid bare, its movements were apparent; and notwithstanding the injury sustained, the intellectual faculties, as I witnessed myself, remained sound up to two hours before death, when there was subdelirium. Twenty hours after his decease, at a post-mortem examination, the brain was in a pulpy state, certainly due to the influence of the air and putrefaction. Such cases, of course, are not of frequent occurrence, but they are of great physiological interest, and although still not satisfactorily explained are worthy the consideration of those engaged in psychological medicine.

Acute softening of the brain is in its symptoms so much like cerebral hemorrhage, that distinction between them is quite impossible. Not so, however, with chronic softening. This is never followed by immediate hemiplegia, but it appears slowly, and is complete in several weeks or months. If it happens suddenly, it is without impairing the mind, as there is no hemorrhage. The intelligence becomes gradually affected, with constant headache, pricking, numbness and stiffness in the limbs, presenting sometimes either hyperæsthesia or anæsthesia, and hemiplegia daily increasing, brings on lastly, coldness and emaciation in the parts.

There is sometimes hemiplegia during the period of collapse in acute encephalitis. This dreadful disease closes its action generally in the stage of excitation, characterized by fever with pulse either quick or slow, with nausea or constipation, acute delirium, and more particularly by convulsions, either in one or all sides of the body, or only in the limbs, with sensibility increased or diminished. If death does not occur during that period, the patient goes through a state of collapse; there is coma, and paralysis follows alone, or is accompanied by or alternates with convulsions. Whatever may be its form, in encephalitis paralysis is a most fatal sign. What is stated about hemorrhage in the brain may be applied to concussions or fractures of the skull, the former being, in the majority of cases, the cause of paralysis under both circumstances. Fractures produce paralysis shortly after the accident, but in concussion of the brain its occurrence is less immediate. In either case, hemiplegia exists in the side of the body opposite to the encephalic lesion. In concussion it may be due likewise to the existence of a purulent focus in some part of the brain; and then paralysis manifests itself later, preceded by inflammatory symptoms, such as more or less transient contraction or convulsion, irritability of the mind, costiveness, nausea, vomiting, &c.

It is an unquestionable fact that tumors may grow and compress the pons varolii, the medulla oblongata, and even other portions of the encephalon, without producing paralysis; but such cases will not here be referred to, and I proceed now to review those symptoms of tumor in the brain causing paralysis. That important details may not be forgotten, let it be mentioned that the general state of the patient and his antecedents help the diagnosis a great deal. But in their absence, or imperfectness, there remain a group of symptoms consisting of convulsions and troubles in sensibility, both of an inconstant character, which are reliable signs of a tumor interfering with the nervous centres. They depend almost upon a congestive state, arising occasionally in those places connected with the tumor, and always precede the appearance of paralysis, with which they may subsequently alternate.

Diagnosis of paraplegia may be easily determined. Except in cases of reflex paraplegia, there is always a lesion in the spinal cord. Loss of movement with anæsthesia in one side, and hyperæsthesia in the other, are symptoms of compression or destruction in a small portion of the posterior columns of the spinal cord, corresponding to the paralysed side. If the posterior columns are affected to a great extent, sensibility and movement are lost in the corresponding side, and sensibility preserved in the other. This is due to the loss of reflex power devolved to the

posterior columns. Compression or injury acting above the dorso-lumbar enlargement of the spinal cord, although producing paralysis, increases in a high degree the reflex power of the spinal cord. Oppolzer, after Bellingeri and Valentin, pretends that lesion in the anterior columns of the spinal cord affects especially the flexor muscles, whilst that of the posterior columns affects the extensor. But these are not constant facts, and, therefore, cannot be considered as belonging exclusively to the above peculiar alterations.

To close with what concerns diagnosis of paralysis, I will call your attention to certain states described by French pathologists as *pseudo-paralysis*, and which are almost independent of alterations in the nervous centres. Although they interfere with muscular exercise, they are not likely to confuse an attentive observer, nor is it an exaggeration to say that confusion is impossible in any of the cases. Muscular atrophy has its characteristic symptoms, which, in another lecture, will be extensively exposed. The only state which might be confounded with local paralysis is contraction in certain muscles, and particularly in those of the neck. But even here the nature of the disease is soon made clear by a means of diagnosis, of great importance in diseases of the joints. Whenever extension is gently tried in a contracted muscle, two things may occur: the affected muscle and its congener regain after a while their normal state, or, as soon as any movement is attempted, contraction becomes greater. To the first case a disease in the muscular system ought to be referred, whilst the latter is the effect, by mere reflex action, of an affection in the joints. But nothing similar to what has just been said is remarked in cases of paralysis, in which the muscles in the opposite side remain loose and in a permanent state of flaccidity, even when the parts are maintained in their normal condition.

Original Communications.

EXPERIMENTS WHICH DECIDE A POINT

RAISED BY M. CLAUDE BERNARD,

IN HIS RECENT DEMONSTRATIONS OF THE PARTICULAR NERVES WHICH INDUCE THE FLOW OF SALIVA.

By RUFUS K. BROWNE, M.D.,

PROFESSOR OF PHYSIOLOGY AND MICROSCOPIC ANATOMY.

THE latest course of lectures,* by Bernard, was almost exclusively occupied with experimental study of the several secretions which enter the upper portion of the alimentary canal, and in experimentally demonstrating the part directly played in their production by particular nerves.

He satisfactorily demonstrated, in a series of careful experiments, that each of the salivary glands is stimulated to functional activity by a particular nerve; the parotid by a small branch of the facial, the submaxillary by the chorda-tympani, and the sublingual by a branch of the latter.

Having shown experimentally, with uninjured animals, by means of alternate section and irritation of these nerves, that this direct and active relation exists between them and the salivary process, he concludes his illustrations by remarking that "a desideratum still exists," for, notwithstanding section of the chorda-tympani arrests the secretions of the sub-maxillary and sub-lingual glands, and galvanic irritation of the peripheric extremity of the divided nerve at once renews the secretions, "an anastomosis is formed between Jacobson's nerve and the chorda-tympani, above the point on which we are (he is) about to divide it; and that to ascertain whether Jacobson's

nerve exerts any influence on these secretions, it would be necessary to divide the ninth pair in the immediate vicinity of its cerebral origin—an experiment of such difficulty that no physiologist has hitherto attempted to perform it."†

The suggestion is an anomalous one (since Jacobson's is a sensitive nerve, and Bernard's researches prove that to motor nerves alone are to be assigned direct secretory influences). It appears to have arisen from a fact noticed by Bernard, which is that "the slender filaments (of the chorda-tympani) connected with the sub-lingual gland were infinitely less sensible to galvanic irritation than those which fall into the sub-maxillary plexus."‡ But Bernard suggests besides, that this difference may be due to difference in structure of those two glands.

However this point may be, his suggestion respecting Jacobson's portion of the glosso-pharyngeal (ninth pair) suffices to evince our need of exact and complete knowledge of the physiology of this nerve. The point thus raised by him, if settled, would leave no room for doubt as to the exactness of his extremely valuable present contribution to our physiological knowledge of nervous influence on the salivary glands.

Having, for the benefit of our class, entertained the idea of attempting to attain certainty upon the point thus made by Bernard, we found, on examination, that though a number of experiments are reported by several observers on the ninth pair, some of them were directly contradictory, while others, undertaken to effect a solution of these discrepancies, had led to conclusions equally contradictory in themselves.

This is the case with those of Dr. Jno. Reid, made many years ago,§

His observations, like those of previous observers, fell short of furnishing any satisfactory insight into the physiological relations of this nerve. The alleged experiments of Longet on the nerve are as yet unrepeated by any other observer, so far as I know.

It is plain, from the foregoing, that the attainment of certainty upon the particular pointed out by Bernard, was desirable. However slight its value to medical science, it would leave his brilliant success in fixing upon the particular nerves which enact the part of stimuli to the salivary glands, clear of any anatomical question. As a mere test of the possibilities and limits of operative proceeding on the animal, it deserved a trial; and since no amount of difficulty had ever previously deterred Bernard from attempting the performance of any operation, it seemed decided that he had satisfied himself that its performance without fatal injury to the living animal, was impossible.

Before enumerating the operations performed in our experiments in view of the point in question, we may recall to mind the anatomical course and relations of the ninth pair. In the immediate vicinity of its origin, while within the bones of the skull, it presents two ganglia. Only a part of its fibres pass through the first, but they all are engaged in the second. Within the inner portion of the foramen through which the larger division of the nerve leaves the cranial cavities, it parts with a branch known as Jacobson's nerve, which enters the cavity of the tympanum by a minute bony canal, and divides into several branches. These supply the cavity and carotid plexus of the sympathetic, and anastomose with some filaments of the facial. It is *this* connexion alluded to by Bernard. This division takes place very close to its cerebral origin, and no experiment has been made on the nerve above the level of this division.¶ It is peculiar|| that it here receives filaments from the upper or jugular ganglion of the pneumogastric.

The larger division of the nerve, which is all that has been the subject of experiment, after being joined by filaments of the facial, descends to the mucous membrane of

* Medical Times and Gazette, June, 1860.

† Ibid.

‡ Todd's Cyclopædia of Anatomy and Physiology, Art. *Glosso-Pharyngeal Nerve*.

§ Unless those reported of Longet be entitled to be an exception.

|| Peculiar, because both are sensitive nerves.

* Lectures on Experimental Pathology and Operative Physiology. By M. Claude Bernard. Medical Times and Gazette: 1860.

the pharynx and the posterior third of the tongue. To these filaments of the facial its motor function is due.

The difficulties mentioned by Bernard, in the way of operating upon the nerve at the point of its origin, we shall merely allude to. They are such in character and number that none but the operative physiologist himself could appreciate them.*

Some of these arise from the fact, that the operation must be accomplished in the cranial cavity, and the cutting edge of the instrument will, in the most successful operation in the case, just graze the point of confluence of the lateral and petrosal sinuses.†

And all the difficulties are to be encountered twice in a particular operation, since the nerves are to be divided on both sides.

In the several instances in which the operation was devised and undertaken, most of the various steps were at once accomplished, and subsequently all were successful. The resulting hemorrhage we had feared, soon ceased, without any noticeable result. The first operation, upon a medium-sized dog, consisted in drilling through the posterior part of the occipital bone and passing inwards and downwards a suitable instrument, between the dura mater of the lateral border of the cerebellum, and the corresponding portion of the interior of the skull, to the situation of the nerve. In this case the steps of the operation were performed only on one side, and had no injurious result. A noticeable diminution of the sensibility of the parts of the pharynx supplied by the glosso-pharyngei, on the operated side, was the only sign that the nerve had been in whole or part divided.

In the next instance, the operation was varied, for the purpose of ascertaining the possibility of dividing alone either division of the nerve, without the liability to a dangerous result which had been escaped in the first operation.

This was accomplished as before, but now on both sides. When the nerves were thus divided on both sides, the effects upon the animal functions were observed as follows. The operation was ascertained to be successful by these results, and afterwards demonstrated by autopsy.

1st. No difficulty in deglutition, either in eating or drinking, was detected; lapping was performed as usual, nor was it observed that any of the proper motive powers of the parts employed in these functions were in any way altered or impaired.

2d. The ordinary sensibility of the posterior two-thirds of the posterior third of the tongue was found to be lost, and with it the sensibility to taste of this part; while it remained intact in the anterior two-thirds. In addition, the sensibility of the upper part of the pharynx, and its tonsillitic and eustachian portions, were lost.

3d. The ducts of the sub-maxillary and sub-lingual glands, having been exposed in the manner described by Bernard, the functions of these glands were found to be wholly unimpaired. In the animal on whom this operation had been performed, the application of vinegar to the anterior

two-thirds of the tongue always produced a flow of saliva from these glands, through the tubes with which the ducts had been provided.

The ninth pair, therefore, it is ascertained, *exercise no influence on the secretory function of the sublingual or sub-maxillary glands.*

The filaments derived from that branch of the facial known as the chorda-tympani, alone, therefore, supply the nervous influence on which the secretions of both these glands depend.

Further, we were led to the following conclusions, as to the result of section of the glosso-pharyngei.

1st. That since after their section the functions of deglutition will be performed perfectly well, the impression which leads to this reflex action is due to the gustative branch of the fifth pair, and not to the glosso-pharyngei as has been invariably alleged.

2d. That while section of the glosso-pharyngei, at the point of their origin, destroys the sensibility of the parts they supply (involving a loss of the power of taste there), the motor power of these parts remains undisturbed. This motor power, therefore, attributed to the pharyngei, must be derived wholly from the fibres of communication received by it from the facial and spinal accessory.

Effects of Section of the Facial on Sense of Taste.

The question of the effects of injury to the facial, on the sense of taste, being still unsettled, we were in proper circumstances, while engaged as above, to observe with reference to it.

Bernard has reported, as the result of his observations, that when the facial nerve is divided or seriously injured, above the point of emergence from the stylo-mastoid foramen, there is a diminished sense of taste on the same side of the tongue. At the same time the general sensibility remains. He considered it certain that this effect is due to the chorda-tympani, for if the facial be divided *after* the chorda-tympani has left it, no effect is produced on the sense of taste.

In an animal in whom this diminution was effected by division of the facial, the phenomena were observed.

The fact is perplexing, but on attentive consideration was found explicable. The explanation requires, however, an important modification of our theory of taste.

The sense of taste in its peculiar organ differs from the sensibility of other organs in only an *accessory* character, which is established not by any mere modification or alteration of common sensibility, but by the peculiar anatomical structure and action of that organ—a structure which involves in its *peculiarity* the nervous tissue, which, as arranged in other parts, supplies common sensibility only. From this peculiar anatomical constitution of the nervous and other tissue composing the organ arises the *accessory* character, which we distinguish as sense of taste. Besides this, and supplementary to these anatomical conditions, there are certain physiological conditions essential to the perfect performance of the *function* of taste—such as the various and peculiar buccal, faucial, and pharyngeal secretions, and associated movements of the various muscular parts. Any modification or disturbance either of these peculiar anatomical or physiological conditions, will affect *only* the accessory character of the function; but this alteration of the conditions under which we *taste*, will neither disturb nor impair the *common sensibility*, which is found to be *intact in all cases in which this diminution of taste has occurred.*

Any diminution, therefore, of the secretory or motor functions which aid in taste, and which take place through the medium of the facial, and constitute the physiological conditions of the performance of the sense, will be at once manifested by diminishing the perfection of it. A test of this explanation is found in the fact, that the destruction of common sensibility in the tongue involves the loss of all power of taste; and since this is at once accomplished in its anterior two-thirds by division of the lingual branch of the fifth pair, and in its posterior third by division of the

* An inadequate idea of the *laborious* dissections on the living animal, involved in the repetition of some of his experiments, may be gained from the following statement of Bernard himself, in his description of his discovery of the motor nerves of the parotid gland:—"Our first experiments having been unsuccessful, we modified the operative process." "This last attempt was finally crowned with success after the operation had lasted five hours."

† It is, to the student of Bernard, an entertaining circumstance to find Bernard speak of a "difficulty" in any operation. In such an operation as we are about to describe, a peculiar *additional* difficulty exists in the fact, that the operation which has been partially or wholly successful on an animal as one of the preliminary steps, will be utterly useless or misleading as a guide in a repetition of it for similar or additional steps on a second animal, though both may be externally of similar size. This difference depends on the very remarkable variations in different animals of the shape of the skull, its relative thickness, etc. Each skull will differ very remarkably in these and other respects, having a direct bearing upon cranial operations, from every other one.

‡ This difficulty is constantly encountered by the physiologist in all his operations in the cranial cavity—such as division of the fifth pair. In the dog the sinuses lie so closely together as scarcely to admit the introduction of the smallest *drilling* instrument without opening into them and causing fatal hemorrhage, but if entrance be made into the cavity and these dangers are escaped, in the next movement in the operation there is the greatest possible liability to other fatal incidents.

glosso-pharyngei, the chorda-tympani being intact, the latter nerve is not in any sense or degree a nerve of sense to the tongue. We may consider it settled that its destruction only affects the sense, as a secondary consequence of the withdrawal of its influence from the various secretory and motor functions, upon which the function of taste partly depends.

1. This conclusion agrees substantially with the suggestion offered by Bernard himself, but in addition presents a definite and explicit view of the phenomena of taste. The phenomenon in question so puzzled Stich of Germany (who observed it in a number of cases), that in the absence of a comprehensive and definite explanation, he was driven to attribute it not to the facial but to fibres derived from the fifth pair. He apparently was not aware that destruction of the fibres of the fifth will occasion, not this phenomenon, and not the phenomena of *diminution of taste* with retention of sensibility, but an *extinction* of common sensibility, involving complete *loss* of taste.

In the course of our experiments, we have met with a fact which corroborates this view, viz. that the diminution of taste on division of the tympanic branch of the facial, does not involve the root of the tongue, a fact which we could make accord with no other explanation. In this part of the tongue, although ordinarily subservient to taste, the anatomical and even physiological conditions, which the accessory character we call taste arise from, are varied. The secretions here are mucoid, and mainly serve the purpose of providing a very slippery coat for the passage of the food through the fauces; while the saliva, freely poured into the anterior part of the mouth, and which especially aids in the gustative function, is mainly mingled with the bolus of food before it reaches the posterior portion. These fluids do not bathe this portion of the mucous membrane, nor exercise their influence on it; nor are the comminuted portions of the food, before they are *amassed* in the bolus, brought into contact with it. In addition to this physiological variation, relating to the two parts, there is the further anatomical difference, that in the posterior part, the secreting structure of the tongue mostly consists of little glands and follicles, providing substances that have but little to do with exciting the gustative process.

In this part, therefore, as we have observed, although its proper sensibility remains, when the glosso-pharyngei are entire, section of the tympanic branch of the facial has but little if any observable effect; we could not observe any.

The above is intended merely to present the most abridged form of the effects of section of the glosso-pharyngei, and wholly with reference to the point raised by Bernard.

The experimental evidence, though meagre, is novel. It may, however, find use in the correction of the errors now implicitly adopted by physiologists, which ascribe the reflex function performed in deglutition to the glosso-pharyngei alone.

Its presentation by Bernard, as a point awaiting solution, in intimate connexion with his own discoveries, and being valuable as removing the only point of uncertainty respecting them, invested it with an interest and an importance, which the actual results, *since they are known*, will hardly arouse for it in the mind of the reader.

TEST FOR GRAPE-SUGAR.—Mulder gives the following as the best way of using his test for the discovery of grape-sugar: A little of the sulphate of indigo solution is placed in a test-tube, the fluid to be tested is added, and the mixture is boiled. A solution of carbonate of potash or soda is then added until the liquid is alkaline. If grape-sugar be present, the mixture is decolorized; if not, it remains blue. —*Chemical News.*

ANATOMICAL PUN.—Why is the ulna sometimes called the "funny bone?"—Because it is so near the humerus. —*Vanity Fair.*

Reports of Hospitals.

ST. VINCENT'S HOSPITAL.

SURGICAL CASES.

SERVICE OF DR. FINNELL.

[Reported by WM. O'MEAGHER, M.D., Resident Physician and Surgeon.]

Erectile Gluteal Tumor.—This was in the person of a stout, healthy young woman, a domestic, twenty-nine years old, having first appeared at the age of three years, as a dark-colored spot, about the size of a pea. Three years previously to admission, it first began to attract her notice, being painful, and as large as a hickory nut. From this time it gradually increased, until it assumed the size and appearance of a large teat, three inches long, two and a half inches in diameter at the base, and one inch at the extremity. Proceeding from the muscles, in which it was feebly imbedded at a right angle, it caused the patient a good deal of distress and suffering whenever the clothing came in contact with it. The operation was performed by Dr. Finnell. A thorough enucleation necessitated the removal of a large substratum of tissue, leaving a very considerable cavity to be filled up, which gave rise to much difficulty in bringing the edges of the wound together with interrupted sutures and adhesive straps; the wound, however, healed up kindly, closing by the first intention in three weeks from the operation, and she was discharged one month after admission.

Punctured Wound of the Lung.—Thos. D—, a laborer, thirty years of age, was stabbed with a clasp-knife in a drunken quarrel, receiving, among other wounds of a trifling character, a punctured wound of the thorax, involving the lung. Four days afterwards he was admitted to the hospital. The wound was situated between the fifth and sixth ribs in the left side, near the inferior border of the scapula, and the symptoms were, dyspnoea, cough, moist crepitus; on auscultation slight hæmoptysis; and, external to the wound, circumscribed emphysema. The latter symptom soon disappeared, and the others were not at any time such as to cause uneasiness. He was kept confined to bed, on low diet, with the administration of small doses of pulv. ipecac. comp. frequently repeated, an occasional cathartic, and simple dressing to the wounds. In less than three days he left the hospital well, without the occurrence of a bad symptom.

Caries of Elbow Joint.—Michael F—, aged thirty-five, a blacksmith, sustained a severe wrench of the elbow, while shoeing a horse, eighteen months previously to admission. Inflammation, and finally ulceration resulted, so that he was obliged to give up the occupation at which he worked at intervals, for six months after the accident, and enter one of our public institutions, where the joint was opened in two places, to allow the evacuation of matter. At the time of admission his condition was very low, and a physical examination of the chest revealed a tendency to tubercular disease. This fact, together with an unwillingness on his own part to submit to an operation, prevented an attempt to save the limb by exsection, or, at least, removal of the carious portions. A free incision was made where a collection of matter was observed; poultices were kept constantly applied to the joint, and bandages to the hand and forearm, which were considerably cedematous. The patient at first was confined to bed with the limb supported on a pillow, and slightly bent. Generous regimen, with cod-liver oil and iron, was directed, and in a short time considerable improvement was apparent, locally and constitutionally. This continued without any drawback, until he grew stout and strong; the discharge from the sinuses gradually diminished, and at the end of four months he was almost convalescent, the joint being only partially ankylosed, and giving every hope of a useful limb, and increasing mobility.

Gunshot Wound.—P. C—, a stout, young married man

from the country, was admitted with extensive injury of the left hand by the bursting of a gun.

He had been annoyed by a drunken man calling repeatedly at his house on the night of the accident, and in order "to scare him away," as he said, he put into the barrel of the gun about twelve inches of powder and some wadding. The result was a frightful explosion, scaring not only the intruder but his family, and wounding himself. On examination the palm was found fearfully lacerated, the integument and other soft tissues in some places entirely destroyed, especially around the thumb, the second phalanx of which was blown away, leaving the first entirely exposed and ready to slough off. The index finger was lacerated throughout from the palm to the tip, the third phalanx being destroyed, and the temperature so reduced that total loss was expected. The other fingers were also more or less injured, but not so seriously. The dorsal surface of the hand was intact, but cedematous. He had lost a considerable quantity of blood before the wound was properly dressed, but his general condition was favorable, and he did not complain much.

Cold-water dressings were used at first, anodynes to procure rest, and light fluid nourishment administered. Poul-tices were then substituted, together with generous diet, porter, and milk punch. Under this treatment suppuration and sloughing went on favorably, the first phalanx of the thumb was easily removed, the index finger, excepting the last joint, was saved, and healthy granulations soon filled up the denuded parts. An abscess collected on the dorsum, which was evacuated, and then healed. He left the hospital, nearly well, five weeks after admission.

MISCELLANEOUS CASES. SERVICE OF DR. A. B. MOTT.

Fracture, Contusion, and Caries of the Cranium.—George D., aged 50 years, an iron-worker, while intoxicated fell headlong into a cellar, fracturing the right upper portion of the frontal bone, with severe contusion of the vertex. On admission, one month afterwards, caries had commenced around the fracture, and a large puffy swelling was presented on the upper anterior portion of the skull. He was slightly comatose, and at times delirious, complained of intense headache and constipation, but there were no symptoms of compression so decided as to justify active interference. Accordingly he was closely watched, and relieved of the most urgent symptoms, but notwithstanding all that could be done he continued in pretty much the same way for about a month before any improvement was manifested. The discharge continued to increase, especially after free incisions had been made, in the early part of his sojourn. The whole upper anterior part of the skull was soon denuded, caries followed, and several small portions of the outer table were brought away with the forceps. In the meantime iodide of potassium, with bark, and a generous regimen had been administered assiduously, and gradually and slowly his condition improved so much that he was discharged in three months, at his own request. He returned again two months afterwards in pretty much the same state as when he left. The bone formerly denuded was now covered with granulations, a slight purulent discharge still remaining. This time the same treatment was directed, and in addition astringent solutions were thrown into the sinuses with good effect. He is at present (nearly ten months after the accident) under treatment as an out-door patient, being very much better, and able to attend to his work, the sinuses still discharging a small quantity of healthy pus.

Extensive Burns.—The subject of this case, a young woman under thirty, furnished a striking example of extreme patient endurance, under the most prolonged suffering, and of the utter inefficiency of medical or surgical treatment, in the absence of hygienic influences and good nursing.

About two years and a half before the present time (April, 1861), she sustained severe and extensive burns, by the explosion of a fluid lamp, on the posterior part of the body, from the nape of the neck to the popliteal spaces,

the posterior parts of the arms, etc., and from the first was obliged to lie abed in the prone position. In this way she managed to exist for upwards of two and a half years, never leaving it, unless for the purpose of arranging the bed, or for the necessary evacuations.

A record of the treatment would almost fill a volume. Suffice it to say, that every available remedy that was ever used or proposed, constitutionally or locally, was tried in vain. Very often she was on the point of death by collapse, owing to the immense discharge from so extensive a surface. She always rallied, however, under the most devoted attention, aided by a nutritious stimulant regimen, the appetite being invariably good, and her improved condition would as frequently excite a strong hope that at last the corner had been turned; but after reaching a certain point towards convalescence, she relapsed to the former state, and hope was again deferred. The first sign of improvement was manifested after her removal to a larger ward in the new building. From this time up to the present it has been most marked, the whole surface having cicatrized, while her general condition could be safely pronounced excellent. She still continues the same prone position, occasionally turning on her sides, and sometimes taking an airing in a wheeled reclining chair, kneeling on the seat, while her arms rest on the top. As soon as the fine weather comes, her friends intend to bring her to the country, where no doubt her convalescence will be completed.

LONG ISLAND COLLEGE HOSPITAL.

DR. HAMILTON'S SURGICAL CLINIC,

MARCH 18, 1861.

FRACTURE OF THE LEFT CLAVICLE.—UNION IN FIFTEEN DAYS.

[Reported by GEORGE H. MARVIN, Student of Medicine.]

I PRESENT to you to-day, gentlemen, an example of a fracture of the clavicle in a child. This lad, Henry Phillips, æt. 5, according to the account by his mother, fell upon his left shoulder four days ago. He has been under the care of Dr. Lynch, who has correctly diagnosed and managed the case up to the present moment. You observe a considerable swelling over the point of fracture, and that he droops the left shoulder. Placing my finger gently upon the point of fracture, I observe occasionally, during the acts of inspiration and expiration, a distinct sensation of crepitus, or rather that peculiar clicking of the fragment which generally characterizes the crepitus of a fracture in early life. In order to detect the crepitus in this case, it is not necessary to seize upon the shoulder, and draw the clavicle outwards, with a view to the bringing of the ends of the fragment in apposition; they are already in apposition, as is proven by the fact that the crepitus is felt, when only the finger is placed upon the fractured part. In this way we may determine, although we cannot distinctly feel the ends of the bones, that the fracture is nearly, or quite, transverse, probably denticulated, and that the ends are not displaced or overlapped. We assume, therefore, that it is one of those fractures almost peculiar to children; not strictly speaking a partial fracture, but a complete fracture without displacement, and probably without much laceration of the periosteum. I ought to say that the evidence of its being a complete fracture, and not a partial one, is found mainly in the facility with which the crepitus is detected, and in the freedom of motion between the ends of the fragments, such that it is produced by the ordinary acts of inspiration and expiration.

I wish you to notice that the fracture has been occasioned by a fall upon the shoulder, according to the account given by the mother, and this I have observed to be the case in the great majority of fractures of the clavicle which have come under my notice; so likely is this to happen, that whenever a child has fallen upon the extremity of the shoulder, it will be proper to institute a search to see if the clavicle has not been broken.

Treatment.—With regard to the treatment, nothing can be more simple than the measures which I usually employ in these cases; the tendency to displacement is so considerable, and this bone unites with such rapidity, especially in children, that probably no harm would come from permitting it to remain without any treatment whatever; but as a measure of prudence simply, or to prevent its becoming displaced by any accidental violence, it is well to apply a simple sling after the plan of Fox's apparatus. I shall direct, therefore, that the arm shall be suspended in a sling, with the forearm across the body, the arm and forearm being secured to the body by a few turns of the roller. No axillary pad to be employed. I predict, then, that we shall find the fragment united in two weeks.

Result.—March 29th. The child was again presented to the class. Upon examination, it was found that the fragments had firmly united. Dr. H. said we might now dispense entirely with the sling and roller, dismissing the patient with the direction merely to avoid any violent exercise, at present, which might tend to separate the fragments.

American Medical Times.

SATURDAY, MAY 11, 1861.

MILITARY HOSPITALS AND NURSING.

WAR waits neither the convenience nor preparation of those who are called to its conflicts. Its exigencies and its calamities come suddenly, and in quick succession; and myriads of lives are almost instantly jeopardized, not alone by foe-man's fire and steel, but by other and more dangerous enemies that lurk about military camps and hospitals.

Only three weeks have elapsed since the first call of the Federal Government for troops, and of course no prevailing diseases have had time to spring up in the regiments which have so suddenly been mustered for the field. Previous good health, combined with the excitement of the first march and bivouac, will sustain the vigor of these hosts for many days. But the days are drawing near when this intense excitement will give place to the sober realities of camp life and actual warfare. Hospitals, medical skill, improved hygiene, good nursing, and good food for our army, must very soon be leading and practical subjects for the consideration of American physicians.

Believing that our readers entertain with us the sentiment that the physicians of our country "must not permit ignorance, apathy, recklessness, thoughtlessness, to have any part in the destiny of this army, and that we must not wait to learn by bitter experience, what the Crimean war taught England and France;" and that we must now resolve that "our intelligence shall anticipate and provide against all dangers not essentially fortuitous;" the pages of this journal will be largely devoted to the discussion of questions connected with Military Medicine and Surgery; and as nearly all the Military and Naval Medical Corps of the Federal Government are patrons of this journal, we embrace this opportunity to invite their contributions, through our columns, to their particular departments of medical knowledge and experience.

How shall we save our citizen soldiers from preventible diseases and death, is the most momentous question of this war. This question necessarily involves many subjects of

inquiry, and each of them, from the gravest question in military surgery, to the simplest fact in the regimental *cuisine*, demands the careful attention of medical men.

We may properly commence our inquiries and suggestions for the preservation of the Army, by some statements respecting Military Hospitals and Nursing. Sir JOHN PRINGLE remarks, in his "Observations on the Diseases of the Army:"—"Among the chief causes of sickness and mortality in the Army, the reader will little expect that I should rank (what are intended for its health and preservation) *the hospitals themselves*, and that, on account of bad air and other inconveniences attending them."

Though considerable improvements have been made in the organization and hygienic management of army hospitals since the days of the British campaigns in the Low Countries, it yet remains too true that military hospitals in all later years have destroyed more lives than powder and ball! It is true that, under the enlightened direction of Dr. SATTERLEE, in the Mexican campaign, the last great demand for army hospitals in our own country was met and provided for at least in a spirit becoming our profession and a civilized age. But the prospective necessities of the Federal troops now marshalled in war, demand improvements and means for the benefit of the sick as far superior to those of the Mexican campaign as those exceeded the army hospitals of a former century. Never went forth an army so precious; and, in the history of the world, was never an army so vast and so determined thus suddenly marshalled from the willing ranks of the people. Never was an army made up of such men, and never were the individual and common treasures of a people so profusely offered for the defence of a government and the supply and preservation of an army. There will be no deficiency of material and personal aid for the succor and comfort of the troops. Nor are the Military and Medical Bureaux inattentive to the claims that humanity and a hundred thousand anxious homes are making for improved army hygiene. Both from the National and the State Medical Bureaux we have received positive assurances that whatever can be done, shall be done, for the preservation of the health of the troops. But it must be borne in mind by our profession throughout the country that, without an intelligent comprehension and estimation of the principles and practical application of hygienic medicine by the army medical corps, the good purposes of the central authorities will necessarily fail of their proper accomplishment. Therefore, let every candidate for army service be well posted in all that pertains to camp and hospital hygiene.

We may take it for granted that private munificence will so fully sustain the army authorities that there need never be the least deficiency of means or personal sacrifices and labors to supply every want of the sick as well as the active soldiery.

It requires no further statement to show that whatever is consistent with military regulations and army discipline, may and should now be attempted for the radical improvement of camp and hospital hygiene in our army. Fortunately there exists a disposition on every hand to have all needed reforms initiated and directed by counsels from the constituted military medical authorities. Red tape does not fetter those authorities, and they undoubtedly will, under some existing or some new regulations, decide to introduce such improvements and additions to the service as will insure the most approved organization and hygiene

of hospitals and camps. But in any event, it will be the duty of American physicians to be fully prepared for any exigencies that may arise. Already the New York and other Hospital Boards in this city have proffered their gratuitous services to the State authorities, offering to go to any point and to undertake any duty in the organization of Army Hospitals, when required. The five Hospital Boards have also cordially united in giving full effect to a plan for the practical training of a class of approved women to serve as Nurses in the Army Hospitals—an enterprise that is being nobly sustained by the Ladies' Central Association of Relief. This work has received the approval of the proper authorities at Washington, and will doubtless constitute one of the first elements for the improved organization and management of our Army Hospitals.

From information already received, we are assured that so far as any "civil element" or any voluntary aid is needed, or can properly be introduced, the military authorities will encourage its introduction under suitable regulations. In view of this fact, and also in anticipation of what we believe to be the earnest desire of our readers, we shall continue the consideration of this subject in the next number.

THE WEEK.

THE AMERICAN MEDICAL ASSOCIATION has postponed its meeting for one year. Though the fraternal bonds of our profession are indissoluble, the entire North is so truly united in the support of the Federal Government that all men seem to be unconscious of any other duty, and in this devotion to country no class of citizens are more hearty than physicians. The million of citizens now impatiently demanding the privilege of rushing to the rescue, also demand that their physicians go with them. "For," say they, "let Death make no reprisals except upon the battlefield. Medical science and the physician's skill must guard our camps." When next our Medical Congress convenes, we trust that not only the fraternity of States, but the unity and power of our life-saving profession, will be abundantly confirmed, by the record of experiences and works of a war in which no needless inhumanities and no preventible sacrifice of life were allowed.

LINT and Bandages have become staple articles of domestic manufacture from Maine to Iowa. This was well for the brief period when volunteer regiments in their haste could not wait for Government orders and supplies. But the time has now arrived when other wants of the soldier should receive most attention. Let light flannel garments both for the sick and the active soldiery be accumulated. They will be required.

MEDICAL men and army surgeons are admitted to be brave men; and when occasion requires, their terrible intrepidity, like that of the surgeon-gunner of FORT SUMTER, dares any danger. But inasmuch as the mission of the physician and surgeon in armies and at the battle-field, is to save life and not to destroy, ought not the medical corps of contending armies to be, as far as practicable, shielded from the enemy's fire? It was the glory of the renowned LARREY, that in all his campaigns with BONAPARTE, he devoted his matchless skill as freely for the benefit of wounded and suffering foes as for the troops to which he belonged. And more than once, when inevitable death

awaited him, as an officer of rank in the Army, a timely recognition of his name and duties at once made him an object of protection by the enemy. Let such an honorable recognition of the claims of humanity in scenes of carnage characterize the acts of the immense armies now on the eve of conflict. In order to insure a ready recognition of members of the Surgical Staff when moving on errands of mercy in the theatre of battle, let the proper Medical and Military Bureaux of the contending armies agree upon and direct a distinctive and easily recognised uniform that shall be worn in common by the medical corps of both armies.

ARMY SURGEONS.—In answer to the numerous correspondents who have addressed us with reference to the best mode of obtaining commissions as Regimental Surgeons, we would suggest, as the most proper course, that they join some local regiment, and afterwards present themselves for examination before the Surgeon-General and his Board of Examiners.

THE following order from the Surgeon-General's office will give the reader an idea of the responsibility and importance attached to the office of medical inspector of army volunteers at the New York City Depot:—

GENERAL HEAD QUARTERS, STATE OF NEW YORK,
SURGEON GENERAL'S OFFICE, ALBANY, April 22, 1861.

SPECIAL ORDERS, No. 5.

Surgeon ALEX. B. MOTT is hereby detailed as Inspecting Surgeon to the dépôt at New York. He will *carefully* inspect the troops on their arrival at the dépôt, in relation to the following points: First, whether there is any evidence of pulmonary disease; Second, any organic disease of the heart; Third, hernia; Fourth, any marked physical imperfections or any infirmity unfitting a man for the active duties of a soldier. He will also daily inspect the quarters and attend to all matters pertaining to the hygiene of the dépôt. It is particularly requested that he cause to be enforced *perfect cleanliness of quarters and men*. He will report to this office on Saturday of each week the number of men inspected in each company, the number accepted, together with the name of the officer commanding each company. By order of the Commander-in-Chief,

S. OAKLEY VANDERPOEL, Surgeon-General.

MIAMI VALLEY MEDICAL ASSOCIATION.—We learn from reliable authority that this Association is made up of a band of eclectics, persons who consequently have no claim for countenance by the profession. We make this announcement that any of our contemporaries who may have heretofore sent their journals to these pretenders may cease to do so, for the reason stated. The transparency of the trick on the part of this pseudo-scientific body is only equalled by the impudent solicitation made by them a short time since for medical literature free of expense!

DR. A. CLARK's lectures on Diphtheria will be continued after a lapse of two or three weeks.

SMALL-POX in military depôts and encampments is one of the direst calamities to which an army can be exposed. Will not the Surgeons-General of the State troops issue orders to the Medical Inspectors at the various military depôts to provide officially for the immediate vaccination of every regiment? Upon inquiry, we learn that the Eastern Dispensary, alone, in this city, is prepared to supply fresh virus for the vaccination of a thousand or more every day for the next six weeks. The inconvenience of the vesicle and soreness is but trifling, and need not prevent soldiers from drilling and other duties.

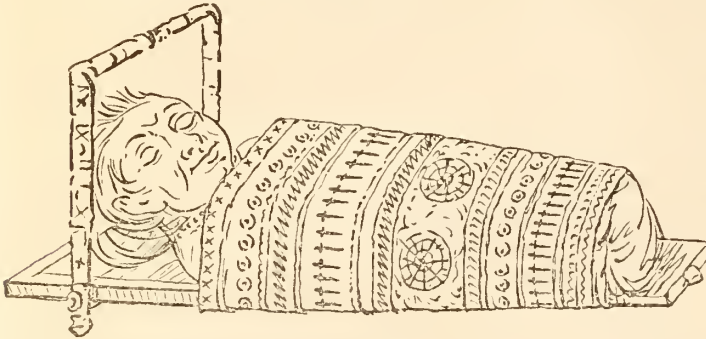
Reviews.

THE BREATH OF LIFE, OR MAL-RESPIRATION, AND ITS EFFECTS UPON THE ENJOYMENTS AND LIFE OF MAN. By GEORGE CATLIN. John Wiley: 1861. pp. 76.

(Concluded from page 296.)

THE following remarks upon the customs of the Indians in their care of their children, and in their habits of sleeping, and the comparison with civilized people, are interesting:—

“The Savage mother, instead of embracing her infant in her



sleeping in this position from infancy to old age, affords very conclusive proof, that if commenced in early life, it is the healthiest for a general posture, that can be adopted.

“It is very evident that the back of the head should never be allowed, in sleep, to fall to a level with the spine; but should be supported by a small pillow, to elevate it a little, without raising the shoulders or bending the back, which should always be kept straight.

“The Savages with their pillows, like the birds in the building of their nests, make no improvements during the lapse of ages, and seem to care little if they are blocks of wood or of stone, provided they elevate the head to the required position.

“With the civilized races, where everything is progressive, and luxuries especially so, pillows have increased in longitudinal dimensions until they too often form a support for the shoulders as well as the head, thereby annulling the object for which they were originally intended, and for which, alone, they should be used.



“All animals lower the head in sleep; and mankind, with a

sleeping hours, in the heated exhalation of her body, places it at her arm's length from her, and compels it to breathe the fresh air, the coldness of which generally prompts it to shut the mouth, in default of which, she presses its lips together in the manner that has been stated, until she fixes the habit which is to last it through life; and the contrast to this, which is too often practised by mothers in the civilized world, in the mistaken belief that *warmth* is the essential thing for their darling babes, I believe to be the innocent foundation of the principal, and as yet unexplained cause of the deadly diseases so frightfully swelling the Bills of Mortality in civilized communities.

“All Savage infants among the various native tribes of America, are reared in cribs (or cradles) with the back lashed to a straight board; and by the aid of a circular, coneave cushion placed under the head, the head is bowed a little forward when they sleep, which prevents the mouth from falling open; thus establishing the early habit of breathing through the nostrils. The results of this habit are, that Indian adults invariably walk erect and straight, have healthy spines, and sleep upon their backs, with their robes wrapped around them; with the head supported by some rest, which inclines it a little forward, or upon their faces, with the forehead resting on the arms, which are folded underneath it, in both of which cases there is a tendency to the closing of the mouth; and their sleep is therefore always unattended with the nightmare or snoring.

“Lying on the back is thought by many to be an unhealthy practice; and a long habit of sleeping in a different position may even make it so; but the general custom of the Savage races, of



small support under it, inclining it a little forward, assume for it a similar position.

“This elderly and excellent gentleman, from a long (and therefore necessary) habit, takes his nap after dinner, in the attitude which he is contented to believe is the most luxurious that can be devised; whilst any one can discover that he is very far from the actual enjoyment which he might feel, and the more agreeableness of aspect which he might present to his surrounding friends, if his invention had carried him a little farther, and suggested the introduction of a small cushion behind his head, advancing it a little forward, above the level of his spine. The gastric juices commence their work upon the fresh contents of a stomach, on the arrival of a good dinner, with a much slighter jar upon the digestive and nervous systems, when the soothing and delectable compound is not shocked by the unwelcome inhalations of chilling atmosphere.

“And this tender and affectionate mother, *blessing* herself and her flock of little ones with the *pleasures of sleep!* how much might she increase her own enjoyment with her pillow under her head, instead of having it under her *shoulders*; and that of her little gasping innocents, if she had placed them in cribs, and with pillows under their heads, from which they could not escape.

“The contrast between the expression of these two groups will be striking to all; and every mother may find a lesson in them worth her studying; either for improvements in her own nursery, or for teaching those who may stand more in need of nursery reform than herself.

“So far back as the starting point in life, I believe man seldom looks for the causes of the pangs and pains which beset and torture him in advanced life; but in which, far back as it may be, they may have had their origin.

“Little does he think that his aching, deformed, and decaying ing teeth were tortured out of their natural arrangement and

health, in the days of their formation, by the cold draughts of air across them; or that the consumption of his decaying lungs

has been caused by the same habit; and that habit was the result of the actual tenderness, but oversight, of his affectionate mother, when he slept in her arms, or in the cradle."



We cannot dismiss this quaint production without a word of commendation. However much in the medical theory advanced by the author may be questioned, it is certain that the work aims to correct a habit, which, to say the least, is disgusting. We trust it may be introduced into every family, and every Sabbath and public school in the country. There are few children who will soon forget its apt illustrations, and every one will be led insensibly to correct the tendency to this habit. The author closes with the following appeal:—

"And if I were to endeavour to bequeath to posterity the most important Motto which human language can convey, it should be in *three words*—

Shut—your—Mouth.

"In the social transactions of life, this might have its beneficial results, as the most friendly, cautionary advice, or be received as the grossest of insults; but where I would point and engrave it, in every nursery, and on every bed-post in the Universe, its meaning could not be mistaken; and if obeyed, its importance would soon be realized."



Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, April 3, 1861.

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

DISCUSSION ON MORBUS COXARIUS.

(Continued from page 293.)

DR. WATSON.—There is no disease in surgery which requires more attention from the surgeon than this. From almost the earliest period of my professional life this subject has been one of great importance to me, and consequently I have paid a great deal of attention to it. I remember as long ago as 1835 and '36, I happened to be in London, and during that time my attention was particularly called to this disease by a conversation with Mr. Liston. And at that time there was a very spirited discussion between him and Mr. Brodie on the pathology of the disease, and particularly in reference to the dislocation that was said to occur in the latter stage. Mr. Brodie had taken the ground that there was a secondary dislocation, that the head of the bone was lodged upon the dorsum of the ilium. Mr. Liston took issue with him on that ground, and I believe if the journals of that date be consulted, their discourses will be found. These subjects were thoroughly discussed, and it was the talk of all the medical public of Great Britain. Liston took the ground that luxation never occurred. As I was going up to Edinburgh, Mr. Liston told me to look into the large museums of that city for secondary luxations. I spent a day or two in looking over those specimens, which amounted to several hundreds, and I could not succeed in finding any where this accident had taken place. The disease was not, therefore, one of the secondary dislocation, but one of absorption. The true

luxation that occurs is a very rare affection. That it sometimes does occur, the following case will prove. I remember some years ago a child was brought into the New York Hospital with a large ulceration over each hip; the heads of both the femurs were projecting through these openings, and were dislocated. The specimen is now in the museum, and an account of it may be found in Dr. Ray's *Catalogue of the Pathological Cabinet* of that institution. This luxation took place in consequence of the openings which formed. There is another mode in which the luxation will occur; now and then, as has been remarked by some of the gentlemen, the disease affects the bottom of the cavity of the acetabulum, which is swept away, and the head of the bone is thrown into the cavity of the pelvis. That I have seen. So there are two ways in which dislocation can occur; one by destruction of the capsular ligament, and the other by perforation of the acetabulum. One word in regard to the origin of this disease. I cannot but admire the order and neatness with which Dr. Post opened this discussion, but in the point of pathology, I think he was rather limited in his views. He states as his belief that the disease originates in the bone. I take issue with him on that point; the disease, I believe, may commence in the cartilage, and also in the ligaments. In the latter instances there is acute pain and effusion early, but when in the bone there may be no pain at all. You may see cases that have gone many months without pain, in which the first thing that calls the attention of the parents is a shortening of the limb. This last variety has called forth most attention, and is most easily cured. When the disease begins in the synovial tissue, it has the same form as pleuritis. In this form of disease, the progress is next to the cartilages; they become eroded, and will appear as if they had been rubbed off by sandpaper, by piecemeal. If the disease commences in the bone, they turn yellow and brown, they become soft, elastic, and loose, and finally become disinte-

grated. In the former variety, the cartilage remains attached to the bone until it has entirely disappeared by piecemeal. Now, with regard to the treatment of this disease. If you see one of those cases that begin with severe pain, you may be very much alarmed, but if you see them early you can generally manage them very well. Extension is of very great use in these cases.

As long ago as 1840, when I just took charge of one of the departments of the New York Hospital, I had occasion to treat patients in this way by extension, and I founded my treatment of those cases upon Dr. Harris's paper as published in the *Philadelphia Medical Examiner* in 1839, and subsequently referred to by Dr. J. G. Adams in a paper which he published in July, 1839, in the *New York Journal of Medicine*. I merely make this statement to counteract the impression that this treatment has fallen into disuse. From the very hour I read Harris's paper, I have always looked upon it as the best plan of treatment until the new mode introduced by Dr. Davis came into use, which I highly approve. I remember the first case which I treated upon this plan. She was brought into the Hospital suffering agonizing pain, scarcely allowing any one to touch her. I remember telling Dr. Kearny Rodgers that I intended to treat the patient upon a new plan. "Well," said he, "let us see how it will work." I placed her upon the straight apparatus as if she had a fracture of the thigh. I had hardly put on the counter-extension before the girl was entirely free from pain. It operated beautifully and instantly. I have always used it since.

With regard to some of the other points that have been discussed in reference to the different forms of apparatus, I cannot say much, because I have had very little experience in their use. It is not necessary in every acute stage to use extension, for if you sometimes purge a child freely you will not unfrequently put a stop to the disease at once, to your utter astonishment. I can refer to a case of this sort which occurred within the last two months. A child for several days complained of severe pain in its knee and hip. I found a great deal of tenderness on pressure over the hip. This child I purged with a little pulvis purgans; applied leeches freely behind the trochanter; kept it at rest, and used some stimulating embrocation, and in two weeks the patient was about. This I look upon as one of the cases in which the disease begins in the synovial membrane. I think that a great many cases of this sort can be treated without the necessity of extension; when, however, that necessity does exist, the instrument which I believe was invented by Dr. Davis, and modified by Dr. Sayre, is an improvement on the old plan, and will be adopted by the profession generally; and as I understand Dr. Sayre is now willing to do justice to Dr. Davis, there need be no further discussion upon the subject.

DR. SAYRE.—I would ask Dr. Watson if he has read my report?

DR. WATSON.—I have not.

DR. SAYRE.—I presumed not, or you would not have made that last remark, in which you state, you learn that I am now willing to do justice to Dr. Davis, thereby inferring that hitherto I have been unwilling to do so. (Cries of order!)

CHAIR.—The gentleman will confine himself to the subject, which is the treatment of the disease.

DR. SAYRE.—I will, sir; but I have been openly charged in this Academy, during my absence, as dishonorably claiming ideas which belong to Dr. Davis. And Drs. Parker, Post, and Buck, have signed their names to a report testifying to the same. (Cries of Order!) I claim, sir, the right of correcting this false statement. If my report were in the hands of the whole profession, it would need no correction from me; but as it is not, and only the few who obtain the *Transactions** will ever know the truth, hundreds of other young men in the profession will hear the slander and never hear the correction. I therefore claim the privilege

of reading from my report what I have said in relation to this matter, and then leave it with the profession for their honest judgment. I have been in the habit of applying motion with extension for eight years or more, and have had frequent discussions with Dr. Bauer on this subject, as he can testify. Several cases of ankylosis occurred, one of which in a particular friend of mine in Kentucky, made a lasting impression on my mind. This subject, sir, was a topic of discussion every time we met, because from him I could learn more than was in our standard works upon the subject, he was in advance of the age; and he can testify whether or not I am indebted to Dr. Davis for any of the principles laid down in my report. The construction of Dr. Davis's instrument being the first to embody this principle of motion with extension, I fully acknowledge. Have I not stated this in my report? I will read the paragraph in which I refer to him.

"This was a desideratum I had tried long to accomplish, but never succeeded to my satisfaction until Dr. H. G. Davis, of this city, applied to him one of his instruments, which answered the purpose admirably, and in its construction embraced the very principles I had so long sought to obtain. As Dr. Davis is, I believe, the first person who has constructed an instrument embracing these important advantages, extension with motion, I have taken the liberty of presenting a plate of the same, and his own remarks in regard to its method of application. I have made, as I think, some very important improvements and modifications of this instrument, which I will describe more fully hereafter." Here, sir, follows a plate of his instrument, and two pages of his own remarks; and then the succeeding paragraph in which I state: "This instrument of Dr. Davis was applied in this case with the happiest results for a few days, but it soon began to excoriate the groin, and the method of extension was not satisfactory, and could not be controlled at will; but would be either too feeble or too severe, and I therefore constructed an instrument embracing all the principles in this, but much more effectual in its application, more comfortable to the patient, and entirely under the control of the surgeon."

Can any man write the English language more clearly? I appeal to the profession! Am I then to be traduced for being wanting in honor in not making proper mention of Dr. Davis, as these gentlemen have charged me?

The best proof that the modification is an improvement, is the fact that Dr. Davis has now adopted it in his own instrument. Pardon me, Mr. President, if in these remarks I have overstepped the bounds of prudence; but justice to myself demanded they should be made. And now, sir, so far as I am concerned, this is the last of this subject, and I hope for ever.

I will now proceed to discuss the subject under consideration. Dr. Post has given to the Academy a very excellent exposé of the subject, and I can clearly recognise the chief features of my report in his statement. But the learned gentleman has signally failed to appreciate the pathology of hip-disease, which I think is indispensable, since it, and it only, furnishes us with the scientific basis for rational therapeutic action. In part, Drs. Watson and Bauer have already supplied this deficiency, and but little is left for me to add to their remarks on this part of the subject. DR. SAYRE then proceeded to enlarge on the subject pathologically in its various stages. We omit, however, this portion of his remarks, as his views on this particular point are already before the profession in his report.

What the report, however, did not contain, was the treatment of the sequelæ, or effects of the disease, when left to itself, and its spontaneous relief, viz: permanent impediment of the joint, and deformity. I am anxious, said he, to supply this deficiency at my earliest leisure, and I embrace this opportunity only for the purpose of referring to this very important branch of the subject under consideration.

There can be no further doubt as to the efficiency of

* Trans. Amer. Med. Asso., Vol. XIII, 1861.

surgical aid in these cases; and I may be permitted to relate one or two cases in confirmation. In November last, I was called to Hartford, Conn., by Dr. Curtis, to advise in a case of ankylosis of the hip-joint with very great deformity. The patient was a young lady, aged 14. When three years old, she was attacked with what was thought hip-disease, from which she suffered four years, at last resulting in perfect immobility, and acute angular flexion, and adduction of the thigh. The flexion was so great that the anterior surface of the thigh was in close contact with the abdomen, producing constant excoriation. The heel was placed on the opposite thigh, two inches above the knee-joint. It may easily be imagined how much this deformity interfered with the bodily requirements. Most physicians who had seen the patient, pronounced it dislocation into the ischiatic notch, and declared it on that account irremediable. Not knowing whether the joint itself was ankylosed, or whether the fixed position of the joint depended on osteophytes, I decided on the following plan: first to divide all the contracted flexor and adductor muscles, then to try a moderate force, sufficient to fracture off the osteophytes, and in case of failure, then to perform Rhea Barton's operation. This procedure required necessarily great discretion, on account of the possibility of producing diastasis of the head of the femur. After putting the patient fully under chloroform, and dividing all the contracted muscles, and a portion of the vagina-femoris which was very short and tense, I succeeded with a moderate amount of force, in freeing the head of the femur from its fixed position. Every one in the room distinctly heard the breaking of bony substance, which could have been but osteophytes around the joint; for immediately afterwards the joint itself moved tolerably smoothly. I suggested to follow up this result by constant extension over a pulley, and rest, with such local antiphlogistic applications as might be necessary, until all inflammation had subsided; and at a proper time, to apply the hip-splint, and encourage exercise. Since this time I have not seen this patient, but I have received a letter from Dr. Curtis, dated the 5th of March, in which he states, "Her limb is entirely down upon the floor, and of equal length with the other. She has free motion of the joint, and there is no pain whatever on pressure. She walks with a cane only, having left off the instrument for more than two weeks; and I think she will not be obliged to resort to it again." From the fact that osteophytes caused the impediment of the joint in this case, and the fact that the limb is now of the same length as the other, I infer that the original difficulty was periostitis only.

I could refer also to another case sent to me by Dr. Gunn of this city, of genuine morbus coxarius of seven years' standing, resulting in permanent ankylosis in the straight position with four inches shortening, caused partly by the twisting of the pelvis, and partly from absorption of the bone, and arrest of development in the limb. In this case the contracted muscles were divided, and the adhesions broken up with equally satisfactory results, with the exception of the length of the limb, which of course cannot be restored. But motion has been given to the joint, and the limb is rendered useful, so that she can walk without a cane or crutch. I could narrate many more similar cases; but merely mention these as type cases of the different diseases which result in deformities of this joint.

Dr. Sayre, in conclusion, exhibited a hip-splint he was now using, which allowed free motion of the knee-joint; and another apparatus for the extension in the diseases of the knee-joint, which enabled the patient to take exercise in the open air. He had used this instrument for some months, in quite a number of cases, with the greatest benefit, and could therefore confidently commend it to the attention of the members.

DR. PARKER: I wish to ask Dr. Sayre if I understood him to say that the case treated by him in this neighborhood was complete ankylosis. I am surprised if it should have proved so to be. I will further ask Dr. Sayre what

he means by the expression used in his report that "motion is as essential to the joint as light to the eye." I now wish to know whether the object of that splint first suggested by Dr. Davis, and afterwards adopted by Dr. Sayre, is to give motion to the diseased joint or to the whole body. My own conviction is, that the great law which obtains everywhere in inflammation, obtains also in the joint; light is for the eye in a healthy state, but in disease light should be excluded. The treatment of inflammation in the early stage is rest. We get our extension and counter-extension by the application of this splint, and thereby we accomplish everything in the joint. Our patient gets the air, but that joint is still at rest. The great advantage of Davis's splint is, not that it enables us to give motion to the joint, but that it allows the patient the opportunity to exercise, to lift him up to the getting-well point. The time at length arrives when the activity of the inflammation subsiding, the great doctrine of passive motion comes in, which with this splint can be commenced earlier than by the use of any other means. In conclusion, I repeat the question, does he use the expression already cited as applying to the diseased or to the healthy joints?

DR. SAYRE, in answer to the question, stated that in the case already quoted, he should not say that the ankylosis was complete, but he supposed it to be one of those cases where osteophytes shot out around the joint like stalactites, and thus riveted the parts together; certain it was that when he broke up the adhesion there was a sensation as if such a state of things existed. In relation to the second question, he stated that the principle upon which the instrument was applied was to permit motion in order to take exercise before the disease was entirely cured, and prevent the return of the disease by pressure, and the crowding of the two synovial surfaces against one another.

DR. WARREN then moved that the subject for discussion be continued the next meeting.

The Academy then adjourned.

Recent Inventions.

The following wood-engravings represent an apparatus for the application of gases, vapors, and chloroform, invented by Mr. S. E. Smith, Surgeon to the National Ear Institution, London, editor of the "*London Medical Review*."

This instrument has been most successfully used by Mr. Smith in the treatment of chronic inflammatory diseases of the middle ear, by means of the application of gases, vapors, etc., to the tympanum through the Eustachian tube; more

No. I.



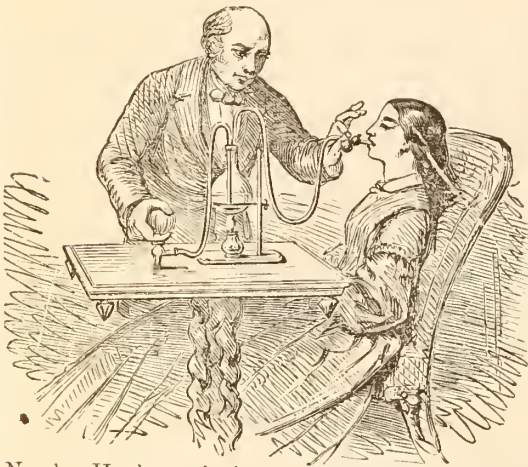
especially the bromuretted vapor, many cases of deafness of

long standing having been cured which had hitherto resisted all other-treatment.

The instrument is simple and compact in form, and so constructed that it can be used to any internal organ of the human body where a catheter can reach; but it is more especially applicable to the tympanic cavity through the Eustachian tube and to the bladder. It can also be used for the inhalation of vapor in diseases of the mucous membrane of the mouth, fauces, and tonsils, and in deafness arising from diseases of these parts extending into the tympanum. It is also useful in certain affections of the larynx and bronchiæ, and by the use of different shaped glasses to fit various parts of the surface of the body it is said to have been highly beneficial for the application of gases, chloroform, and several powerful remedial agents to malignant and other external tumors.

Illustration Number I. shows the surgeon in the act of applying the instrument, when required for the treatment of disease in the tympanic cavity through the Eustachian tube:

No. II.



Number II. shows the instrument in use when required for the treatment of disease in any part of the throat:

No. III.



Number III. shows it in use when required for tumors, etc., on any part of the surface of the body:

Mr. Baillière, of London, has just brought out a new work on the Ear, from the pen of the inventor of this apparatus, in which several interesting cases of deafness are illustrated, treated with the bromuretted vapor.

Correspondence.

THE INEFFICACY OF CROTON OIL AND TARTAR EMETIC, WHEN APPLIED TO THE SKIN.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I have thought possibly that the following result of my experience in the use of croton oil and tartar emetic might be of service to the profession in the way of destroying the confidence which has been placed in them, when applied to the skin. The idea that croton oil will purge if applied to the umbilical region or anywhere else on the skin, must be a mistaken one. In some dispensaries it is asserted that it will do so; I have employed croton oil externally, for some years to the chest, abdomen, and extremities; I have seen it applied by mistake to the hair for hair oil, but I never yet observed the least purgative or even laxative effect from it. It will no more cause purging, if applied to the abdomen, than tart. emetic ointment will cause emesis. If Croton oil, when applied endermically, ever appeared to act on the bowels, the action was either caused by the friction employed or by the impression made on the patient's mind by being told that croton oil would act in that way; bread pills have been known to purge—nay, even a few drops of cold water will drive off pain. An acquaintance of mine, of a violent temper, and a great believer in homeopathy, was in the habit of using aconite for some abdominal pain. One night he was seized with the pain; his wife got out of bed to fetch his favorite aconite. Alas! the vial was empty, the wife was astounded; none could be had that night; her husband was impatient; she heard his groans afar off. She thought that for once she would play him a ruse: she filled the vial with cold water, and in his presence poured out a few drops. In a quarter of an hour he was relieved, and blessing his beloved aconite, he turned over asleep.

Croton oil does not affect the skin of every one: the other day I ordered some oil to be applied to the chests of two children laboring under bronchitis; they were twins of two years old; on the one it acted well, and on the other not at all. I have seen several instances of the same kind.

It is also said that tart. emetic, if applied to the thorax, will cause pustules on the scrotum through the action of the organic nerves. I have used tartar emetic in the form of ointment and plaster very often. I have had to employ it to myself on several occasions, but I never saw pustules in the scrotum save in one case, and then I traced it to the flannel of the patient; a large quantity was rubbed on the chest; it came off in the flannel shirt, and thereby reached the scrotum. A month ago, a man was seized with a most violent inflammation of the scrotum from croton oil. He, on the eve of going to bed, rubbed the oil to his chest pretty freely, and popped in without washing his fingers. His scrotum being itchy during the night, he rubbed it; next day the scrotum was swelled to an enormous extent. It was a week before he could leave the bed.

Yours, etc.,

JOHN BURKE, M.D.

NEW YORK CITY, March 18, 1861.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

January 16.—Prof. Syme to-day lithotomized a boy six years old, who had had symptoms of stone for three years. He performed the lateral operation very leisurely, holding the index finger upon the front or cutting edge of the blade, and taking plenty of time to extract the stone, which proved in this case to be very large—fully one inch and a quarter in diameter. I observed that a tube was intro-

duced into and retained in the wound. Mr. Syme next removed a tumor from the forearm, which externally appeared to be fibrous, but on cutting into it cancerous tissue was apparent. It also had spread into the muscles adjoining—a very suspicious circumstance. Dr. Gillespie next reduced a dislocation of the shoulder in a powerful man, without chloroform, with his heel in the axilla.

Prof. Simpson advises that, when labor is obstructed by a hydrocephalic head, we should not perforate the cranium and to certainly destroy the child, but should tap it with a trocar; thus performing in utero the operation most calculated to be of service to it in mundo. Again, when it is a footling case, and the hydrocephalic head cannot be born, he advises, instead of using great traction or endeavoring in this awkward situation to puncture with trocar, to cut across the spine, when the fluid will immediately find exit. Dropsy may occur in the other cavities of the fetus; especially pleuritic and peritoneal effusions. In Dr. Gairdner's wards yesterday and to-day I saw a case of delirium tremens with grave pneumonia. To-day there is great improvement. Treatment: One quarter of a grain of tartar emetic every four hours, and brandy, six ounces in the twenty-four hours. The case of tricuspid murmur presents now slight derangement in quality of first sound and occasional intermissions. Prof. Laycock to-day, while lecturing upon the hemorrhagic diathesis, said that he had seen several cases of severe bleeding after the extraction of teeth, and thought that the best way to arrest the flow was to first put a little cotton wool, saturated with tr. ferri sesquichlor., into the cavity, and then cutting a piece of soft cork into the shape of the tooth, press it into the cavity, and then closing the mouth; in this way keep up constant pressure.

January 17.—Mr. Edwards gave a very good suggestion as to club-foot shoes, which was to have a hole under the heel through the sole, by means of which it can be at any time easily ascertained whether the heel is or is not down.

Mr. Syme remarked upon lithotomy as follows: Cheselden's operation is the perfection of lithotomy, and when properly performed unquestionably furnishes the best results. The error of cutting too little arose in Glasgow. A surgeon of that place, influenced by the examination of a fatal case where he found that he had cut beyond the limits of the prostate gland, wrote a pamphlet in which he urged the importance of making very limited incisions. Mr. Liston was deeply impressed by this, and adopted the principle in his practice. In fact, whenever he wrote to his friends he would, when the subject of the letter was wholly irrelevant, write as a kind of text or maxim to be kept always before the mind, "The less that is cut the better." I would urge equally strenuously this maxim, "The elastic ring must be cut." Again, on lithotripsy, Mr. Syme remarked with great animation, as follows: I think lithotomy safer than lithotripsy. A man with stone goes to a surgeon to be relieved of it. Lithotripsy is performed, every fragment is removed, the fee is paid; the man returns home, and the case is set down as a cure. But in a great majority of cases, sooner or later, symptoms of inflammation of the bladder come on, even where there is not any fragment remaining, making the man perfectly miserable. I have seen most tremendous suffering when, after death, an autopsy proved that there were no fragments. In addition to these remarks of Mr. Syme, let me say that a surgeon of this place told me that he, when house surgeon in London, saw many suffering most excruciating agony after lithotripsy had been practised, and he mentioned one case in particular where a man with most capacious urethra, and a small stone, in fact a model case, died in five days after crushing had been performed by a most accomplished surgeon.

A patient was shown for whom Mr. Syme had made a new nose about four weeks ago. Although not of the most classical style of beauty, yet it made a very respectable appearance, and appeared to be well nourished. Surprisingly little cicatrix was left in the cheeks from which

the flaps had been slid to form the new nose. A man was also shown from whom a short time since an epithelial cancer of the lower lip had been removed, by oval incision. No deficiency of lip was observable; perhaps a little more stiffness of the under rather than of the upper lip.

January 18.—Prof. Simpson, in remarking upon retardation of labor by mal-presentations, after enumerating the usual deviations to be met with, related several cases where he had found one arm twisted around behind the neck, and almost entirely stopping labor. In fact, unless the pelvis is very roomy delivery must be effected by turning. The first case he met with he was so puzzled by the unusual state of things that he took the precaution to touch the presenting *lusus naturæ* with a stick of nitrate of silver, so that he might know the offending member after birth. In order to make a certain diagnosis in all such extraordinary cases it is advisable to chloroform the woman profoundly, and then introduce the whole hand and make a thorough examination. Spasmodic and unequal contractions of the uterus often delay labor. Says the Professor: "I once saw a case where the os uteri was so firmly closed around the neck of the child that all attempts to extract with the forceps proved unavailing until I ceased to pull when the uterus was contracting, and drew gently and firmly down *between* the pains."

Mr. Syme to-day excised a suspicious ulcer with a hard base from the left side of an old woman, aged seventy-three years, about midway of the crest of the ilium and the last rib. A fibrous tumor began growing in the site of this ulcer in 1800, sixty-one years ago. Three years ago it began to grow rapidly, and three months ago it sloughed out, leaving this ulcer. The case of injury to the brain resulting from the fall of a slate, which I have already mentioned is now—eighteenth day since accident—well. Mr. Syme seems to attribute a good share of the fortunate result to the fact that firm pressure was kept up for nine days by a pad of lint which was placed over the longitudinal sinus to restrain profuse hæmorrhage, which occurred immediately upon the withdrawal of a spicula of bone which was driven into the sinus. Fungus cerebri was, he thinks, prevented by this pressure; and he announced his intention to adopt the same practice in a similar case even without any hæmorrhage, for the sole purpose of preventing protrusion. Also a wound, a cut, of the brain is far less dangerous than a bruise—far less liable to be followed by hernia cerebri. A boy fifteen years old was operated upon for necrosis of the tibia, and a large piece removed. In connexion with this let me remark, that I have not yet found here any just appreciation of the power we certainly have to prevent necrosis. They cut down, after the inflammation is over, and remove its result; beyond that no effort is made. I think the reason is that operations here upon the bones are very often followed by fatal results. A woman from whose fibula I saw an exostosis removed a short time since, died in two or three days of obstructive phlebitis. Dr. Gillespie removed to-day a boy's foot at the ankle-joint. The os calcis was the only bone diseased, and should have been the only part sacrificed; but in Edinburgh partial amputations of the foot find no favor. An ukase has gone forth from one high in authority to the effect that amputations at the ankle are to be preferred, and doubtless for some time that will be the practice here. Curiously enough, I have not seen a single case here where amputation has been performed, that had not either scrofulous abscesses or carious joints in other parts of the body.

January 19.—Dr. Rutherford Haldane, at his pathological lecture to-day, mentioned a case of fatal erysipelas of the head, where, at a post-mortem examination he found that peritonitis and pleurisy had taken place, and not inflammation of the membranes of the brain. Another case presented on post-mortem the following lesions:—Atrophy and slightly inflammatory softening of the brain; enlargement of prostate; bronchitis; emphysema; adhesions in the pericardium; enlargement of the heart. Atrophy of brain, he remarked, is almost constant in advanced life, and

the increased amount of serum in the ventricles is a direct result of a provision of nature to fill up the resultant vacuum. Granules of a brown color, irregularly scattered over the surface of optic thalamus under the microscope, were found to be composed of fat. This state of atrophy predisposes to apoplexy. He thought that adhesions from pericarditis rather tended to diminish the size of the heart, and that the general impression that the heart, in struggling against its restraints, grew larger, arose from the fact that these cases were almost always complicated with valvular disease, as in the present case, and that the increase in size of the heart arose from the valvular lesions.

A man presented himself at the Infirmary to-day, for advice concerning a pulmonary complaint, who exhibited a most striking example of the benefit of judicious and careful surgery. *Careful, full of care* for the interests of the patient. His hand had been amputated in Savannah, America, on account of a severe burn, and evidently every bit of tissue possible had been saved, for very ragged and irregular projections here and there projecting from the stump were to be seen. Every bit of this irregular, unseemly-looking stump seemed instinct with life, and although hardly three lines in length each projection was wonderfully useful, putting to shame many lazy fingers of normal length. Such a case, although generally disregarded, has more practical instruction in it than a hundred amputations, showing as it does to those who love the human form divine that every shred of living skin, every fragment of palpitating muscle is valuable, and will ameliorate the future existence of our patient, if we suffer it to remain. I cannot but admire the plan first, I believe, proposed and carried into execution successfully by Dr. Potter, who, in the report of a case of amputation at the hip-joint which has recently appeared in your pages, mentions leaving quite a long stump of muscle so as to render the adaptation and use of an artificial limb quite feasible. Dr. Potter is personally unknown to me, but I trust he will forgive this liberty. I know that men in general would rather make a clean regular wound, and by the knife save themselves the future trouble of dressing a shaky finger, but to my mind every inch of living tissue should be saved, especially in the hand.

(To be continued.)

Medical News.

POSTPONEMENT OF THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

SIR:—The undersigned committee, appointed to make the necessary arrangements for the Annual meeting of the Association in this city in June next, hereby give notice, that said Annual meeting will be *postponed* until the first Tuesday in June, 1862; on account of the present grievously disturbed condition of the whole country.

N. S. DAVIS, G. BLOODGOOD, DE LASKIE MILLER, J. W. FREER, E. ANDREWS, THOMAS BEVAN, H. W. JONES,	}	Committee of Arrangements.
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CHICAGO, April 25, 1861.

NUMBER OF PHYSICIANS IN U. S.—The number of physicians in the U. S. is estimated at 40,481.

EXTRAORDINARY GROWTH OF TOE NAILS.—Mr. Partridge, at the meeting of the Pathological Society of London (April 2, 1861), presented a toe nail from a woman, which was *six inches in length*.—*Lancet*.

HIGH MICROSCOPIC POWER.—Mr. Ross, at the request of Dr. Lionel Beale, has lately produced a lens with a power of *one twenty-sixth of an inch*.

JACKSONIAN PRIZE.—At a meeting of the Council of the

Royal College of Surgeons of England, on the 9th instant, the Jacksonian Prize was awarded to Mr. Henry Thompson, of Wimpole Street, Cavendish Square, a Fellow of the College, and one of the Surgeons of the University College Hospital, for his essay on "The Healthy and Morbid Anatomy of the Prostate Gland." This is the second occasion on which Mr. Thompson has carried off the Jacksonian Prize.—*British Med. Journal*.

PIGS' BLADDERS FOR POUltICES.—M. Dechange, a Belgian surgeon, recommends the employment of pigs' bladders as a means of applying poultices to the fingers or toes. Evaporation is thus prevented, and additional heat can be obtained by introducing the bladder into tepid water. When once the bladder is obtained, all trouble is ended.

REGIMENTAL SURGEONS, N. Y. STATE VOLUNTEERS.—The Commission, composed of Drs. March, Cogswell, and Hun, appointed to decide upon the qualification of applicants for the posts of Surgeon and Surgeon's Mate, N. Y. State Volunteers, have reported to the Governor the following successful candidates for the respective posts, out of 101 applicants. *Surgeons*.—J. Atherly, Albany; Nor'n S. Barnes, Rochester; N. Barrows, New York; Elias L. Bissel, Buffalo; J. C. Bogardus, New York; Reed B. Bontecou, Troy; H. E. Brown, Fort Hamilton; F. L. R. Chapin, Albany; James Chapman, Medina; Wm. B. Coventry, Utica; Wm. B. Crandell, New York; Edward L. Dunster, New York; Edward B. Dalton, New York; E. F. Eisenford, New York; J. W. S. Gouley, New York; Jas. D. Hewett, New York; J. Lawrence Hicks, New York; A. H. Hoff, Albany; John Howe, New York; W. F. Hutchinson, S'dy Hill; J. Foster Jenkins, Yonkers; Daniel L. Little, Rochester; Geo. W. Lovejoy, New York; Edward Linch, Brooklyn; F. E. Martindale, Brooklyn; Adolph Mayer, Albany; F. J. Mattimore, Albany; W. O. Meagher, New York; I. Moses, New York; A. F. Mudie, N. York; C. J. Nordquist, Tuckahoe; G. H. Oliver, New York; H. A. Potter, Geneva; J. D. Petherbridge, Geneva; L. Reynolds, Oswego; T. R. Spencer, Geneva; A. J. Steele, Rochester; J. L. Van Ingen, Sch'a; D. H. Young, Albany. Total, 39. *Surgeon's Mates*.—Geo. W. Avery, Rochester; J. G. Bacon, Essex, Conn.; G. S. Beardsley, Oncida; A. C. Benedict, Dover; Wm. B. Chambers, Albany; L. Demainville, Buffalo; Henry C. Dean, Victor; D. B. Dewey, Whitehall; Frank W. Doolittle, New York; Alex. A. Edmeston, Albany; V. V. Elting, Hudson; G. H. Fossard, Port Jervis; Morris Franklin, N. York; Chas. H. Hewett, Geneva; A. M. Helmer, Lockport; A. W. Hollen, Glens Falls; Wm. E. Johnson, Waverley; Wash. Kilmer, Albany; Wm. B. Mann, Brockport; M. L. Mead, Albany; Le Roy McLean, Troy; J. H. Moore, Plattsburg; J. W. Moore, Cohoes; P. C. Pease, New York; Jos. A. Peters, Buffalo; F. Prentice, New York; J. Priestley, New York; W. W. Potter, Cowlesville; G. M. Ramsey, New York; Julius Skilton, Troy; H. M. Sprague, New York; Geo. Steinert, Albany; W. H. Tanner, Hart's Ville; G. B. Todd, Fayetteville; F. L. Town, New York; J. J. Van Rensselaer, Gb'h; B. F. Vosburgh, E. Chatham. Total, 37.

VOLUNTEER SURGEONS, MAINE.—Dr. W. R. Richardson has been appointed Surgeon to the First Regiment, Maine, in place of Dr. S. H. Tewksbury, who declined the nomination on account of pressing private business. Dr. A. A. C. Williams is the Surgeon's Mate.

ILLUMINATION.—It appears that the difference in the illuminating power of the same gas may vary twenty per cent., when tested at the highest and at the lowest points of the barometrical range in this country, from the effect of the rarefaction of the air alone, without taking into consideration the different densities of the gas at the opposite degrees of pressure.—*British Medical Journal*.

GRATUITOUS MEDICAL SERVICES.—At a meeting of the Suffolk District Medical Society, held on Saturday, April 20, it was unanimously voted, that the members of the Society will furnish their professional services gratuitously to the families of the volunteers called into the service of the United States.—*Boston Med. and Surg. Journ.*

Original Lectures.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM,

DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE.

BY

M. GONZALEZ ECHEVERRIA, M.D.,

OF PARIS,

LATE ASSISTANT PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND THE EPILEPTICS OF LONDON, CORRESPONDING MEMBER OF THE ANATOMICAL SOCIETY OF PARIS, FELLOW TO THE MEDICAL SOCIETY OF LONDON, ETC. ETC.

LECTURE. II.

TO-DAY, gentlemen, I shall commence the history of reflex paralysis, remarking, in the first place, that it assumes the same forms as does paralysis from organic alterations in the nervous centres, such, for example, as hemiplegia and paraplegia. It is invariably the fact that in reflex paraplegia no morbid appearances are to be discovered in the nervous centres on post-mortem examination. Strange as this may seem, it is easily accounted for when we direct our attention to the origin of the disease. On the one hand, the nature of the cause acting upon peripheral nerves, and on the other, the peculiar structure of these latter nerves, which are generally affected by reflex paraplegia, would seem to show that the disease originates first in irritation of the sympathetic nerves—bringing afterwards exhaustion of the incitability of the nervous centres. In evidence of these views, we find that the trifacial, the pneumogastric, and the ganglionic system in the abdomen and pelvis, are commonly the parts in which irritation gives rise to paralysis. If we bear in mind that among cranial nerves, the trifacial is insulated with all the ganglia in the head, and possesses the peculiarity of supplying sensibility to all the organs of senses; that the pneumogastric is in relation with several peripheral ganglia, as also, that the sympathetic system has essentially under its influence the functions of the digestive and genito-urinary organs, we can easily understand the frequency of paralysis after their irritation. Therefore, it is in children after teething or derangements of the digestive organs; in adults after uterine and urinary affections, or likewise after sudden exposure to cold and wet, stopping at once the action of the vaso-motory nerves, that reflex paraplegia and hemiplegia are due. I will state that irritation, which in one instance may produce paralysis, oftentimes brings on convulsions at an early period; but paralysis, when definite, is not always complete in all the muscles, nor does it immediately interfere with muscular irritability, although there is a lessening of the reflex power and in the temperature of the limb. The disease continuing, you may observe, particularly in cases of children, that the muscles are atrophied after long rest, and even that there is a stoppage of development in the whole limb. Sensibility remains in most cases; if altered it is generally diminished. Additional evidence that paralysis is due to reflex action is, that the effects are always direct. This fact, as observed by Dr. Brown-Séquard, would explain all the cases of so-called *direct paralysis*, and proves why if a tumor be situated between the petrous bone and the crus cerebelli, and it causes paralysis, that it is in the same side of the body. That eminent physiologist has collected fourteen cases of this kind, all having the same features, which are: incomplete paralysis in the side of the lesion, no anæsthesia (except in one case), and frequent fits of vertigo. As to the latter symptom, let me remark that it is a sign of contraction in the blood-vessels of the brain.

You are aware that repeated impressions not only weaken and even destroy sensations, but also act upon the faculty of incitation devolved on the nervous centres. You likewise know that there is a communication between the spinal cord and the sympathetic nerves. An irritation,

therefore, will take place in the extremities of the latter determining a spasm in the blood-vessels, and if prolonged may exalt, or more probably exhaust, the motory incitability of the spinal cord. As regards contractions in blood-vessels of the spinal cord, they have been observed by Dr. Brown-Séquard, after the application of a ligature on the hilus of the kidney, in irritation of the renal and supra-renal nerves, and of the supra-renal capsules. Comhain and Dr. Brown-Séquard have witnessed that the extirpation of one kidney or supra-renal capsule produced paralysis in the corresponding limb, and I have myself recently seen a case of acute orchitis in the left testicle attended with notable loss of movement and intermittent tremor in the leg on the same side. I have no doubt that contraction in blood-vessels has an important share in the production of paralysis, but I think that over-excited incitability has a greater.

Cl. Bernard has found that when the first thoracic ganglion is galvanised, the corresponding limb exhibits powerful tetanic movements of extension, and that the phenomenon extends to the opposite limb, if the electric current be very intense. If electricity is applied to the abdominal ganglia there is pain and similar reflex movements in the limbs. In both cases, as remarked by Cl. Bernard, contractions are mostly in the extensor muscles. If we now call to mind that action in sympathetic nerves is also manifested as a reflex phenomenon after another nerve has been excited, we may admit that the continuance of the cause may result in abolishing the action, and consequently, that permanent irritation in sensitive nerves may be followed either by convulsions or by temporary or incomplete paralysis. Another proof of the facts I have already submitted to you, can be adduced from the effects of galvanization upon the cervical sympathetic nerves. In such cases, among other phenomena, there is dilatation of the pupil, wide opening of the eyelids, and protrusion of the eyes, signs (the latter especially) which denote a state of paralysis in the muscles of the eyes.

With children, reflex paralysis is usually ushered in with a greater or less state of convulsion—attacking the extensor muscles; while in urinary or hysterical paraplegia, chilliness or tremor in the limbs oftentimes shows the invasion of the disease. It is worthy of attention that in diseases of the spinal cord the limbs are in a state of flexion, as pointed out by Dr. Brown-Séquard, which fact might serve as a means of diagnosis between affections in the sympathetic and spinal systems.

I could refer to many pathological cases confirming the assertion that exhausted incitability is a prominent cause of paralysis; but I will limit myself to the mention of the following interesting ones: Morgagni, Derval, Notta, Tavignot, and other physicians have known amaurosis to be caused by neuralgia, and to disappear as soon as the latter was cured. Marshall Hall, in his work on Diseases and Derangement of the Nervous System, alludes to a case of sudden paralysis of the facial nerve produced by severe cold; in the beginning there was paralysis, the face was drawn towards the opposite side, but subsequently the palsied muscles were taken with permanent spasms, and the face drawn towards the side affected. In this instance the convulsive state succeeded paralysis, and I may add that I have often noticed relapsing contractions, when the muscles were regaining their normal state, at the end of urinary paraplegia. The last case I will mention, is still more interesting. A young lady, aged twenty-two years, was afflicted with metritis, intra-uterine granulations, spasmodic contraction in the neck of the womb, and chronic peri-uterine abscess, attended with several nervous symptoms. She was obliged to undergo a lengthy antiphlogistic treatment and various uterine cauterizations. Curious to relate, at every intra-cauterization she lost consciousness, and momentary paralysis took place in the lower limbs. The details of this important case may be found in the Seventieth Observation of the excellent book of Dr. Nonat on *Diseases of the Uterus*. Indulge me in a final remark upon this topic. Strychnia, which is a valuable remedy for

reflex paralysis, possesses the property of increasing directly the spinal irritability in a high degree, at the same time that it augments circulation in the spinal cords.

Numerous then are the causes of reflex paralysis, the most common, as already mentioned, being exposure to cold and wet; and in children, teething, worms, irritation in the digestive organs, and diphtheria. In adults, diseases in the genito-urinary organs, hysteria, chlorosis, anæmia, and any morbid state producing peripheral irritation, such as neuralgia, enteritis, hemorrhoids, etc.

In children the diagnosis of reflex paralysis, although difficult in some cases, may nevertheless be made clear. The paralysis generally commences slowly, or follows convulsive symptoms, seldom invading one side of the body, and in the great majority of cases being paraplegia and at times crossed paralysis. This character, i. e. localization, is important to diagnosis. When loss of movement is still doubtful, the affected limbs become permanently colder and less colored than the other parts of the body, remaining thus during the continuance of the disease; rest of the muscles causing their atrophy and even that of the bones and skin. As to the differences in diagnosis between reflex paralysis and other nervous diseases in children, I would say, that in encephalo-meningitis, which is with them a frequent cerebral affection, there is for some days or weeks previously a remarkable change of disposition in the child, who becomes dull and somnolent, or often starts up out of his sleep frightened and crying out. During that period there is no modification in the limbs, except that in most of the cases their sensibility is increased. It would be impossible not to recognise meningitis or encephalitis when declared. Weakness in the limbs, owing to rachitis, is detected from the general state of the patient, and the characteristic form presented by the ribs and bones of the limbs, which are *rickety*. In coxalgia the movements of the legs are impeded, but the diagnostic means described when speaking of pseudo-paralysis will soon discover the cause of impediment. You will also observe in coxalgia that there is pain in the hip and in the knee, but no coldness in the legs, which, while the child is lying on his back, he can move; this never happens in cases of paralysis.

There are several diseases, I have said, giving rise to reflex paralysis, and you may perhaps think that paralysis attending affections of the heart is of the same nature. But not so, such paralysis is due to *embolismus* or migration of fibrinous clots into the blood-vessels of the encephalon, chiefly occurring in endocarditis. You know that in this disease the cavities of the heart, and especially that of the left ventricle, are covered with a fibrinous coat, thicker around its apertures. The surface of this coat may be decomposed or divided into fragments, which, once carried through the arteries, go to obstruct circulation in the brain, either suddenly and occasioning mortal hemorrhage, after rupture by over-distension in the capillary vessels, or slowly, causing gangrene in the cerebral tissue and softening, which may be attended with paralysis. It would be interesting to ascertain whether the cause of cerebral hemorrhage attending the puerperal state is not also the above *embolismus* produced after inflammation in uterine vessels.

Hysterical paralysis appears under hemiplegic or paraplegic forms, constantly preceded by the numerous symptoms belonging to hysteria. Of the two kinds, paraplegia is the rarest and most difficult to cure. As to hemiplegia, it is curious, as noticed by Dr. Briquet, from its ordinary occurrence on the left side of the body, a peculiarity likewise existing with other troubles in innervation accompanying hysteria. Weber has attempted to prove that sensibility is greater in the left side of the body; this, however, should not be the cause of that frequency also observed in paralysis due to organic lesion of the nervous system, as I myself have had the opportunity of verifying among a larger number of the paralysed in the National Hospital of London. Hysterical hemiplegia comes suddenly, although it may be preceded by hyperæsthesia or by convulsions in the same side of the body, and generally coexists with

anæsthesia, many times extending to the nerves of the senses on the corresponding side. There is usually, with the paralysis, local hyperæsthesia in the muscles of the back, chest, and epigastrium. These three different states of *rachialgia*, *pleuralgia*, and *epigastralgia*, are so constant in hysteria that Briquet considers them as the *hysterical tripod*. The temperature of the limbs in hysterical hemiplegia is often diminished, but the muscles never waste away. They may become so weak that luxation may be produced, as observed by Dr. Briquet in four cases. Once it was a luxation in the knee, once in the shoulder, and twice in the ankle-joint. The muscles, although insensible to galvanism, retain their irritability; in most cases those in the lower limbs are the first and most markedly paralysed. Retention of urine is very rare, but more or less obstinate; constipation is often met with. Hemiplegia is not uncommon during the puerperal state, presenting about the same symptoms already mentioned. I attended, last November, a lady afflicted with this disease after a miscarriage of five months. The right side of the body was affected, and the case presented the peculiarity of loss of sight and hearing on that side; the pupil was very much dilated; there was continuous noise in the affected ear, and a perceptible tremor of the same side of the face, together with dulness and weakness in the right limbs. Hysterical paraplegia takes place gradually under the same circumstances as hemiplegia, ordinarily after convulsions. It is most observed in young women, and is accompanied with anæsthesia, troubles in the digestive organs, constipation, and retention of urine. There is no muscular atrophy nor loss of contractility, and many patients are able to walk a few steps, afterwards losing all power of movement and remaining very much fatigued.

Paraplegia likewise attends amenorrhœa, menorrhagia, metritis, etc. In cases of amenorrhœa there is pain in the loins, or along the back, preceding the paraplegia, with chilliness and numbness in the legs, fever, weak and frequent pulse, headache, nausea, always constipation, and at times retention of urine, or painful micturition. The movement in the limbs is at once diminished or totally lost. I have not met with any case of paraplegia after menorrhagia or abundant menstruation; but from the description given by Le Roy d'Étiolles, jr., after three cases attended, two by Dr. Moutard Martin, and the other by Dr. Gaudet, of Dieppe, it seems that under such circumstances the paralysis progresses slowly without precursory pain in the loins. The sensibility of the limbs becomes dull and less affected than movement, and the patient, when lying down, is more or less able to move her legs. There is no retention of urine, and constipation is not considerable. During the puerperal state, as well as during pregnancy or in enlargement of the uterus, paralysis in the lower limbs depends more likely upon the pressure sustained by the nerves in the pelvis, as in such instances it is more considerable in the right side, and there are all the signs of pressure upon a nerve, to wit, occasional dulness, numbness, pain in the limbs, etc. In urinary paraplegia symptoms of the urinary affections always precede paralysis in the lower limbs. In cases of nephritis, there is a relation between the state of the limbs and that of the kidneys, and therefore paralysis is more considerable in the side corresponding to the most affected kidney. Paraplegia and nephritis likewise increase and diminish constantly together. In acute nephritis paralysis originates suddenly with chilliness, painful sensation in the loins and in the limbs; there is no tenderness in the spine, but it exists in the renal regions; movement is more lost than sensibility, and not equally affected in both limbs. In chronic nephritis, cystitis, enlargements of the prostate, stricture, and other diseases of the urethra, paraplegia comes slowly after weakness and sensation of fatigue in the limbs; even without much walking, they are often drawn up and sometimes numb and cold. There is usually constipation and more or less retention of urine, sometimes invincible, but little or no wasting. Many patients complain of weakness and heaviness in the loins, but never, in simple cases, of that pain in the spine which is exasperated by pressure or application of

warm or cold water, and which always exists in paraplegia from myelitis. It is not that *feeling of tightness round the body*, nor are other parts paralysed besides the lower limbs, nor are there spasms, cramps, formication or pricking in the latter, all pathognomonic symptoms of myelitis. In reflex paraplegia urine, when long retained in the bladder, becomes darker, alkaline, and charged with mucus or pus according to the state of the kidneys and bladder. In myelitis urine is usually alkaline.

We are indebted to Dr. Brown-Séguard for the most appropriate and successful treatment of reflex paralysis. If the irritation which brought it on exists, we must combat it principally without neglecting the state of the paralysis. The indications, therefore, must be to diminish the external irritation, to improve nutrition in the spinal cord, and to prevent atrophy after rest in the paralysed limb.

As to the first means, they are according to the nature of the disease. If paralysis be due to teething, one of the best remedies for it is the cutting of the gum. I need not say that in cases of worms anthelmintics must be resorted to. In urinary or uterine affections the use of belladonna against the external irritation is of great advantage; for this purpose no narcotic is more powerful than belladonna. Its effects are manifest in from twenty to forty-eight hours, creating a remarkable change in the paralysis. In diseases of the uterus, or of the bladder and urethra, it may be used as a suppository or in injections. In the first instance, one grain of belladonna, with one of extract of opium, to be kept in the vagina during the night; and in the second, an injection with same dose of belladonna, and twenty drops of laudanum, to be retained half an hour or one hour, and followed with some emollient injection. In urinary paraplegia, belladonna is also administered in pills with ergot; $\frac{1}{2}$ gr. of belladonna, and $\frac{1}{2}$ gr. of ergot, taken three times a day, producing the same good effects, as observed by Dr. Brown-Séguard, and by myself. Belladonna, though it diminishes the reflex power of the spinal cord, has nevertheless a marked influence upon the blood-vessels which contract, thus being the most beneficial remedy against inflammation and reflex action. But, as remarked by Dr. Brown-Séguard, it would be, for this last reason, unwise to make a constant use of it; and I should add, after what I have witnessed in several instances, that when there is no inflammation or congestion in the uterus, the bladder, urethra, &c., belladonna from the commencement proves unfavorable.

The chief means to increase nutrition in the spinal cord are—externally, the use of cold douches, or sometimes alternately cold and warm, having the spine rubbed hard immediately afterwards; application of galvanism to the spine, and to lie flat on the back, having the head and limbs placed on high and hard pillows. Internally, strychnine may be used, and Dr. Brown-Séguard insists upon the necessity of giving it always with belladonna in cases of reflex paralysis. It acts by increasing directly the irritability in the spinal cord, as also its circulation. When used alone, the dose may be from one-fiftieth to one-twentieth of a grain, once or twice a day, which dose should be diminished by half, when employed together with opium, and increased when mixed with belladonna. There is still a substance which I have no doubt very much improves nutrition, and this is, iodide of potassium. It is certain, after the interesting researches of Ricord and Grassi, that iodide of potassium increases the globules of blood in a rapid manner. In cases of hysterical paralysis and troubles in the uterine functions I have known constant beneficial results to be obtained by its use. The best form to administer it is with a bitter decoction of bark, calumba, gentian, rhubarb, etc.; three or five grains of iodide in half an ounce of decoction twice or thrice during the day. Iodide can also be employed jointly with strychnia, and then these latter should be in small doses of one-twentieth or one-thirtieth of a grain every day.

To prevent the effects of rest in paralysed muscles, the voluntary power must be exercised frequently upon them.

Application of galvanism is also of great advantage, and very successful, especially against hysterical paralysis. Another excellent means to increase nutrition in the limbs will be the use of a local warm douche or bath twice a day during fifteen or twenty minutes. It augments the quantity of blood, and therefore increases nutrition, but in so remarkable a degree that you may, in cases of children, cause the return of the limbs to nearly their normal dimensions. In adults the advantages are no less great.

To conclude with the history of reflex paralysis, I must direct your attention to the treatment of retention often met with in urinary paraplegia, and at times of an obstinate character. In reflex paraplegia, and in myelitis, the introduction of an instrument to empty the bladder is not so simple an operation as it would appear. I must say that in both instances obstinate retention is frequently produced after permanent spasmodic contraction in the neck of the bladder. Therefore, scarcely is an attempt made to pass the instrument, than the reflex movements are augmented and the legs drawn up with great pain to the patient, and no less disappointment to the physician. Under such circumstances, I have found easier the introduction of a small olivary-pointed bougie, which is not only more elastic than a catheter, but also better borne by the urethra. It should be warmed and well oiled previous to the operation, which must be performed *very gently and without the least pressure*. In cystitis of the neck, you will find, when the bougie reaches this latter point, that contraction is greater, the bougie is at once expelled; but if left by itself without pressure whatever, you will after a while feel it attracted towards the bladder, and this is the moment to pass it in. But there are cases in which this operation becomes impossible even after submitting the patient to the effect of narcotics, warm baths, and other means employed in retention. Then there is still a resource of great importance, although not usual to avoid the difficulty, and it may be resorted to with confidence before even thinking of puncture of the bladder. This means is the administration of chloroform till complete anaesthesia, which brings relaxation in the sphincters and lets the water pass, or at any rate permits the introduction of the bougie. I was myself not long since enabled to do this in a similar case.

As to the use of electricity in reflex paralysis, it must be applied all along the course of the nerves, and to the muscles. The current must be a mild one, except when we want to apply it to the spinal cord, in which case it should be powerful. Every *séance* must be prolonged to fifteen or twenty minutes.

Original Communications.

FISTULOUS OPENING IN THE WALLS OF THE CHEST.

By FREDERICK D. LENT,

OF COLD SPRING, PUTNAM COUNTY, NEW YORK.

THE patient, F. S., laborer, aged 22, native of Germany, had generally enjoyed fair health with the exception of a troublesome cough which had annoyed him for a year or two. In April, 1858, he fell from a haystack to the ground, striking with great force on his head, producing a severe scalp-wound of the frontal region, which was followed by symptoms of concussion. He did not recover complete consciousness for a week. At the end of two weeks, however, the wound had healed, and he had sufficiently recovered in other respects to go to work. Soon after this, he was attacked with violent pain in the right side of the chest, below the nipple, and was confined to the bed. He was attended by an irregular practitioner, but soon got out again, and went to work, feeling pretty well. In July, 1858, he was again attacked with the same sort of pain, and other thoracic symptoms, and was attended by the

same practitioner. His condition now rapidly grew worse; and happening to be in his neighborhood, I was called in by his friends and found him in the following state. He was lying on his back, in a restless, semi-comatose condition, from which he could with difficulty be aroused by loudly addressing him; pulse very rapid and feeble, respiration hurried, and oppressed. Upon physical examination, I found evident signs of pneumonic inflammation in both lungs, and apparently *tubercular softening* under the right clavicle. His condition appeared desperate; but I advised stimulants freely with concentrated nourishment; and, in case of improvement, cod-liver oil and iron. Some weeks after, I learned that he had recovered, and was "about" again. About the 13th of January, 1860, I learned from Dr. S. P. Moore, Surgeon United States Army, at that time stationed at the Military Academy, that the patient had recently presented himself to him with an abscess on the right side of the chest, below the clavicle, which he supposed to communicate with the lung, there being a loud gurgling with expiration and inspiration. As the abscess was pointing, he opened it, and gave egress to a quantity of purulent matter mingled with air.

On January 21st, I met him in the street of the village of Buttermilk Falls, near West Point, and was asked to prescribe for him. It had now been six weeks since the abscess was opened by Dr. Moore; all discharge had for some time ceased, except a small amount of muco-purulent matter, mingled with air, when he coughed. There remained two openings near each other, separated only by an undermined bridge of unhealthy integument, and situated over the sternum, a little to the right of its median line, and opposite the third intercostal space. The probe detected no rough bone, and passed between the third and fourth ribs, towards the right lung. When he coughed, the air rushed forcibly out of these openings with a whistling noise; and the act gave him pain at a point below the clavicle, and two or three inches distant from the openings. By forcible pressure on this spot, he was accustomed to give himself some relief from this pain while coughing. He stated that he gained fourteen pounds after getting out from his long confinement in the summer; but that latterly he had gained nothing. He had taken no medicine of any kind; his appetite was fair, and he felt tolerably well, and was able to be on his feet most of the day; but upon being hurried, or walking *up hill*, was "short of breath." His complexion was florid, and his face full, but his limbs rather emaciated; his pulse feeble and frequent. He stated that he had never "raised any blood." Upon physical exploration, I found that moderate pressure on a spot over the right side of the thorax, about two inches below the clavicle, gave pain; at this point, there was some flattening of the walls, but nothing marked. Percussion yielded very good resonance on the left side, both anteriorly and posteriorly, and very fair on the right side, posteriorly and laterally; anteriorly, the dulness was quite marked. Auscultation yielded bronchial respiration and whispering pectoriloquy in a marked degree at some points, passing into cavernous respiration, *over both lungs*, except at the upper part of the left, where the respiratory murmur, though far from normal, was better than elsewhere. Anteriorly, under the clavicle, on the right side, but little sound of any kind was to be distinguished, no moist sounds whatever. Prescribed cod-liver oil combined with the syrup of the iodide of iron, with very moderate exercise in the open air, and to wear a moderately tight bandage around the chest.

April 9, 1860.—Saw the patient again to-day, and was struck with the change in his appearance; he looks quite well, and has been at work, hauling lumber, loading and unloading the waggon himself. His breathing is still quite hurried when he makes much exertion. Thinks the oil has benefited him very much; is still taking it. The artificial opening has closed, but a small fistulous orifice still remains, through which the air whistles when he coughs. He has been accustomed to perform on a brass wind instrument, and he has lately been trying it again, and succeeding pretty

well, he says, while compressing the abscess forcibly; but, otherwise, the air, instead of passing into the horn, *rushes out of the fistulous opening in the walls of the chest*. He also states that the bandage about the chest relieves him very much, and that he could not do any work without it. The physical signs have undergone a marked change since last date, and are now as follow: *Right side*—anteriorly—from clavicle to fifth rib inspiration almost inaudible, expiration prolonged, and blowing; below the fifth-rib, feeble murmur. Percussion yields moderate dulness under the clavicle as far as second rib, below this the resonance is normal. Posteriorly—base of lung—bronchial respiration, but some returning respiratory murmur; middle—bronchial respiration; superiorly—amphoric respiration as far as spine of the scapula. Percussion yields a normal resonance throughout. *Left side*—anteriorly, returning respiratory murmur; posteriorly—base—respiratory murmur fair; middle and upper portions—bronchial respiration, more marked above. Percussion note good throughout.

March 5, 1861.—Since last date, have only seen the patient occasionally. For some time past he has been gradually failing, and last night he died.

Autopsy.—With the assistance of my friend, Dr. John M. Cuyler, U. S. Army, I made a post-mortem examination to-day. There is but little difference in the appearance of the two sides of the chest, except a marked prominence of the extremity of the fourth rib on the right side. Just above this there is a very minute opening, sufficient to admit an ordinary probe into the pleural cavity. Upon percussion, the resonance of the chest anteriorly is nearly normal, and about the same on the two sides. Upon dissecting the coverings of the *thorax* in the usual manner, we found that a dissecting abscess had separated the pectoral muscle from the ribs and intercostal muscles, to the extent of several inches. The abscess was nearly empty, and communicated with the pleural cavity by an opening an inch or more in length, and as broad as the intercostal space. Upon looking into this window, we could distinctly see the walls of an immense empty cavity.

The *sternum* and costal cartilages having been carefully raised, the right pleural cavity was seen to be almost entirely empty, from above downwards as far as the sixth rib, with the exception of that part nearest the spinal column, which was occupied by pulmonary tissue and dense false membrane. The whole cavity was lined by organized false membrane several lines in thickness, and the thickened pleura, which was rough, and moistened by purulent matter. The whole lung, or what remained of it, was firmly bound down by these membranes, except a very small portion at its lower part. The left lung had a decidedly emphysematous appearance, being apparently too large for its containing cavity, and crepitated well; there were but few adhesions on this side. The *pericardium* contained several ounces of serum; and the right cavities of the *heart*, which was itself healthy, were distended with fluid blood, or what might almost be denominated fluid blood, so thin was it. While endeavoring to break up the adhesions at the upper and posterior part of the right lung, our hands came in contact with, and were scratched by, a sharp substance, seeming like spicula of bone; and, upon detaching the lung entirely, we were surprised to find a bony, or *quasi* bony plate, about two inches in diameter, and several lines in thickness, lying against and attached to the right bronchus, extending nearly as high as the bifurcation of the trachea, and forming, by its free surface, a part of the internal wall of the large cavity before alluded to. Adjacent to this, and extending downwards, the inner wall was completed partly by the thickened pleura, and partly by condensed pulmonary tissue about an inch in thickness, and presenting none of the characters of normal lung tissue. The base of the lung was tolerably healthy, being only congested. This lung presented no appearance of tubercles in any part. Upon examining the left lung more critically, besides the emphysematous condition previously noticed, and which was especially apparent about the middle and

superior portions of the anterior surface, the lobes were found to be occupied throughout with translucent milary tubercles in tolerable abundance, varying in size from that of a millet-seed to a grain of rice; no yellow tubercle; the lungs crepitated throughout. It is proper to mention that, on turning back the sternum, it gave way near the articulation of its body with the *manubrium*, the appearance of the fracture evidencing a diseased condition of the bone; its tissue being softened and infiltrated with a reddish grumous matter.

CASE OF INTUSUSCEPTION IN A CHILD

By F. B. RICHESON, M.D.,

OF COLD SPRING, N. Y.

JUNE 28, 1860, at 8 P.M., I was called to see William K., æt. seven months. The mother stated that it had always been healthy, and that a few days before its bowels were rather loose, but were regular until about two hours before, when it was taken with "cramps," and shortly afterwards commenced to vomit. On examination, the patient had no fever; tongue was natural, and on careful examination of abdomen, nothing unusual was discovered. In fact, it appeared well, except at uncertain intervals it would show indications of pain by moving its limbs and crying out, etc. Small doses of calomel were directed to be placed on the tongue, together with lime-water and milk, to arrest vomiting; and if it did not get better soon to give injection of tr. opii and water. June 29, 8 A.M.—Patient continued to vomit a yellow fluid from time to time during the night; the injection arrested it for a time; had a small mucous discharge. Continued calomel and lime-water, and gave an enema of warm water and soap, which had no effect. At 8 A.M. there was no change; a little bloody mucus was passed; once or twice bowels a little distended with wind, and in the left lumbar region can be felt a soft movable tumor about the size of a pullet's egg. Ordered another soap and water enema, to be followed by an anodyne injection. June 30, 8 A.M.—Still vomits a yellow inodorous fluid; thirsty and restless; the tumor more marked; passed a gum catheter into the rectum until it met with resistance (six inches), and then threw in through it warm water, but it was immediately ejected. 8 P.M.—Dr. F. D. Lente saw it, and under influence of ether succeeded in passing the tube further in, and after throwing in some warm water thought the tumor had disappeared. July 1, 8 A.M.—The tumor can be felt as before, and it is now evident that it is the cause of the little patient's suffering; and moreover that it is connected with the intestine, and probably an intus-susception. It continued with the above-mentioned symptoms, and died on the night of the 3d.

Autopsy, four hours after death.—There was very little distension of abdomen, and the tumor could be distinctly felt. On opening the cavity we found very little indication of general peritonitis, but considerable in the region of the tumor. Removing the intestines carefully we found the tumor to consist of an intus-susception of all that portion of bowel included between two inches of the lower end of the ileum and two inches of the lower portion of the descending colon, into which two inches the gut was impacted, but was easily drawn out. There was some congestion of the included part, but no indication of sloughing, which we were surprised to see.

CASE OF CONGENITAL INGUINAL HERNIA (STRANGULATED).

By J. C. HUTCHISON, M.D.,

PROFESSOR OF OPERATIVE SURGERY AND SURGICAL ANATOMY, LONG ISLAND COLLEGE HOSPITAL, SURGEON TO BROOKLYN CITY HOSPITAL, ETC.

MR. H., aged about thirty years, while straining to evacuate his bowels, on 3d September, 1860, observed that a

tumor appeared in the left inguinal region, accompanied with considerable pain. The pain continued for two or three hours, with vomiting, when he was seen by a surgeon, who recognised a hernia and succeeded in reducing it by the taxis. Mr. H. had never before observed a tumor in this region. The hernia did not come down again, although no truss was worn, until September 13, at 2½ o'clock, P.M., at which time he suddenly felt pain in his bowels, with a desire to go to stool; he passed nothing from his bowels, but during the effort the hernial tumor again appeared. He was seen soon after by Dr. John Vanness, who used the taxis faithfully, but could not reduce the tumor. At the request of Dr. V. I saw the patient about 9 P.M. His general appearance was good; pulse seventy-five; tongue coated; occasional vomiting (not stercoraceous); singultus; no abdominal tenderness. The tumor was mostly within the inguinal canal, a portion about the size of the testicle projected through the external ring, the pillars of which constricted the protrusion so as to divide it into two portions of unequal size, the larger being within the canal. The lower portion could be easily returned within the canal, with a gurgling sound, but would reappear immediately on removing the finger from the external ring. The tumor was not very painful to the touch, but every five or eight minutes the patient complained of severe twinges of pain, which he supposed was owing to gas entering it, increasing the tension, and then passing out again. It was resonant on percussion. The patient being placed in proper position the taxis was again made, until we became satisfied that the reduction could not be thus effected. Ice was now applied to the tumor as long as it could be borne, but to no purpose. An injection was administered, and brought away a few lumps of hardened feces. His tongue being covered with a thick yellowish coat, he was ordered a mercurial cathartic and we left him for the night (after having continued our efforts to reduce the gut for four or five hours), hoping that nature might come to his relief after a time. The symptoms were not so urgent as to demand an immediate operation. At 5 P.M. on the following day, his general appearance had not altered, vomiting continuing, no movement of the bowels, and no obvious change in the condition of the tumor. The taxis was again employed, but to no purpose, by Prof. Frank Hamilton, who now saw the patient and rendered me valuable assistance during the operation. At the suggestion of Professor H. his hips were then drawn up over the foot of the bedstead so as to place the body in an inclined plane, and the patient directed to strain while the taxis was re-applied; he was also placed on his knees and elbows, with his head bent between his arms, and the taxis applied while in this position, but without effect. He was again put under the influence of chloroform by Dr. Vanness, and another effort to return the gut by the taxis having failed, I proceeded to operate. The incision was commenced half an inch above the external ring and carried downwards two and a half inches in the course of the spermatic cord, through the skin and the cellular tissue. The inter-columnar fascia, cremaster muscle, and transversalis fascia were successively divided on a director and the hernial sac exposed. These tissues were easily recognised in the dissection; the hernia being recent, they had not undergone those changes which take place when the disease has existed for a long period. The sac was somewhat congested and distended with fluid, through which the intestine could be felt about half an inch below the surface. When opened, about one ounce of bloody serum escaped, exposing the contents (intestine), which were found in a fit condition to be returned into the abdomen. The left forefinger was passed into the canal and detected a tight stricture at the internal ring, through which I endeavored to pass a hernia knife on the finger, but found it impossible to do so, both on account of its tightness and the distance (the whole length of the finger) of the internal from the external ring, which rendered the manipulation inconvenient. The finger was withdrawn and the external ring

divided upwards and outwards three-fourths of an inch, so as to enable one to reach the stricture more conveniently.

Finding it still difficult to introduce the knife through the stricture, I ruptured it with the finger, and was at once enabled to reduce the hernia. The edges of the internal ring were well defined, sharp, and hard, giving an impression to the finger not unlike that produced by pressing on the cutting edge of Gimbernat's ligament. The testicle presented itself at the opening in the sac after the bowel had been returned, which indicated that the communication between the peritoneal cavity and the tunica vaginalis had never been closed. The superficial external pudic artery was divided in the first incision, and required the application of a ligature. The wound was drawn together by two sutures and adhesive straps, and covered with a compress and T-bandage. The influence of the anæsthetic soon passed off and the patient expressed himself as feeling comfortable; pulse, seventy-five. Ordered opium gr. ij., and gr. j. every two or three hours subsequently, until sleep should be produced. On the following day his pulse was seventy-eight, and he complained of great thirst; some pain in the wound; had vomited once the previous night; and had had two evacuations from the bowels. No untoward symptoms appeared from this time, and on the twelfth day he had sufficiently recovered to go to his business in New York.

The above case offers several points of interest:

1. The parts were congenitally in a condition for the development of a hernia; that is, the pouch of peritoneum which was carried down by the testis as it descended into the scrotum before birth, and which communicated by its upper extremity with the peritoneal cavity, had never been entirely closed. This was proved by the presence of the testicle in the sac, and yet a hernial tumor had never appeared until the period above mentioned.

2. Notwithstanding the stricture had existed for twenty-seven hours and was found to be very tight, the symptoms were by no means urgent; yet a delay of the operation for two or three hours would, I believe, have been fatal.

3. The hard, cutting border of the internal ring was an unusual feature.

4. The coverings of the tumor were in a normal condition, and could be recognised with as much facility as if no hernia had existed, and the distance between the rings was about as usual in health. This was owing to the fact that the hernia was recent.

5. The stricture was ruptured with the finger instead of being incised as is commonly done.

CASE OF ECLAMPSIA.

By E. MILES WILLETT, M.D.,

OF MEMPHIS, TENNESSEE.

I WAS called at five o'clock A.M., to see Mrs. G., æt. 35, who lacked fifty days to the completion of the term of her fifth pregnancy. She commenced flooding at two o'clock A.M. Upon examination, I found the os uteri not sufficiently dilated to introduce the point of the finger; hemorrhage inconsiderable. At the end of about two hours, I made another examination, but detected no change in the condition of the os. Ol. ricini was prescribed, which moved her bowels in a few hours. At my afternoon visit, she was suffering from pain in the region of the stomach, and had vomited several times. As she had lost a good deal of blood, I determined to rupture the membranes, when the head came down upon the os uteri. I pressed it back and allowed about half of the liquor amnii to escape; the pains then came on regularly. She soon after commenced to complain of strange sensations in her head, together with dizziness and dimness of vision, which led me to fear eclampsia; but as she had lost so much blood already, the lancet was not to be thought of. About six o'clock P.M., whilst sitting beside her, I observed, for the first time, that she held her breath and made an effort to bear-down; and on going to the

bed, I found the child's head born; another pain, and the whole child was expelled. I resorted to the usual method to establish the respiration of the child, tied the cord, and gave it to the nurse. On returning to the mother I found her flooding, and I accordingly placed my hand upon the abdomen, and attempted to stimulate the uterus to contraction, by kneading, etc.; applied gentle traction upon the cord. The uterus was now pouring out a considerable quantity of blood, and I determined to introduce my hand into the vagina and remove the placenta. As soon as the hand had passed the ostium vaginae, the uterus contracted and forced the placenta into my hand. During this last expulsive effort, she was seized with a terrific eclampsia—the inferior maxillary was drawn down on the one side, whilst the muscles of the neck, abdomen, superior and inferior extremities labored in violent spasms. Pallid, anæmic, with a quick and thready pulse, she remained unconscious for four days, and finally recovered under the influence of stimulants, tonics, and concentrated nutritious diet. In my opinion, a variety of causes, centric, emotional, and eccentric, conspired to produce eclampsia in this patient.

1. Spinal erethismus, developed during each gestation, manifested by convulsions in her first parturition, and by abortion in her second and third pregnancy. 2. Great loss of blood, producing spinal anæmia, which is as effectual in causing convulsions as the opposite condition. 3. The return of her husband, whom she had anxiously expected for several hours. 4. And last, though not least, the irritation of the excitator nerves of the vagina, occasioned by the introduction of the hand, for the removal of the placenta.

LIGATURE OF THE PRIMITIVE CAROTID,

FOR WOUND OF THE OCCIPITAL ARTERY IN THE OCCIPITAL GROOVE.

By ALFRED MERCER, M.D.,

OF SYRACUSE, NEW YORK.

I WAS called, March 18, at 9 P.M., to see J. McC., aged 22, who, in a fight, about half an hour before my visit had been stabbed behind the left ear. He was pale and faint from the loss of blood. On removing the cotton batting, saturated with blood, with which his neck was enveloped, I discovered a wound an inch in depth and two inches in length, the centre of which was two inches back of the external auditory meatus. The direction was from above, downwards, forwards, and inwards. A feeble jet forced itself up through the blood which filled the wound. I tried in vain to grasp the artery with forceps. Pressing the finger to the bottom of the wound, I could completely control the hemorrhage. My diagnosis was a wound of the occipital artery, and I thought if I could control the bleeding for four or five days by compression, the vessel would close up. Accordingly I filled up the wound with lint, and approximated the lips, afterwards securing them by sutures. This controlled the hemorrhage most perfectly for five days, the bandages being scarcely soiled. At the end of that time slight hemorrhage occurred. More bleeding followed on the sixth day, and Dr. Pease was called in consultation. On the removal at that time of all the dressings, so fearful was the hemorrhage, that Dr. P. was inclined to think that the carotid had been wounded. Under the circumstances, we both thought it impracticable to search for any wounded vessel. The flow could not be completely controlled by pressure as before, and we accordingly determined to ligate the primitive carotid, to save the life of the patient. This opinion was concurred in by Dr. Dunlap, who was added to the consultation, and the operation was performed above the omo-hyoid muscle, with the effect of arresting the hemorrhage temporarily. This was on the 24th. On the 27th, a slight secondary hemorrhage occurred, and on the 29th, pulsation being felt in the left temporal artery, a suspicion was entertained by Drs. Pease, Dunlap, and Trowbridge, that the main trunk had not been entirely occluded

by the ligature. A second ligature was accordingly applied through the old wound, but the pulsations in the temporal were felt as plainly as ever on the second day. No hemorrhage took place until the 8th of April, when Drs. Pease and Dunlap called, in my absence, to see the case. They opened the wound, and found that the blood escaped from a point just inside of the mastoid process in the situation of the occipital artery. There was then no resource left but to apply a compress over the bleeding part, and make use of pressure by means of the hand, which was kept up unremittingly by the attendants until death ensued on the 10th, twenty-three days after the reception of the injury. On March 31, the right arm and leg were found to be paralysed, and convulsions set in eighteen hours before death.

The post-mortem, ten hours after death, showed that the wound had extended in between the mastoid process and the transverse process of the atlas, wounding the occipital artery in its passage along the occipital groove. The posterior inferior edge of the mastoid process was denuded of periosteum. The ligature came away from the carotid with very little traction. The artery was perfectly occluded. Brain to all appearance healthy.

Reports of Hospitals.

NEW YORK HOSPITAL.

THREE CASES OF COMPOUND FRACTURE OF THE SKULL.

[Reported by J. L. LITTLE, M.D., House Surgeon.]

CASE I.—Compound Fracture of the Skull—Operation—Fungus Cerebri—Recovery.—T. Kelly, aged 16, American, was admitted (service of Dr. Watson), Sept. 29, 1860, with a compound depressed fracture of the right parietal bone. He was thrown from a wagon, and while lying on the ground received a glancing blow from the wheel of a passing car. The scalp, including the pericranium covering the right parietal bone, was severely lacerated and thrown down over the ear. Patient at the time of admission was sensible, and no symptoms of either concussion or compression were present. About three hours after patient was etherized and the depressed fragments removed, leaving an opening in the bone nearly the size of a silver half dollar. The dura-mater was not wounded. Free hemorrhage from the diploe was arrested by pressing soft wax into the edge of the bone. The scalp was cleansed and replaced, and a compress and bandage applied. The following day these dressings were removed and cold water applications substituted. Patient progressed favorably up to the seventh day, when a slight protrusion from the opening of the skull was noticed. By this time a considerable portion of the torn scalp had sloughed, leaving a surface of the bone exposed, nearly the size of the palm of the hand. On the eighth day patient complained of a severe pain in the head, had delirium at night, pulse 144, and quite full. About eight ounces of blood were taken from his arm, which relieved the pain and brought down the pulse to 120; bowels freely moved; leeches applied to temples and behind the ear, and a blister to the nape of the neck. He passed a quiet night, and the next morning seemed to be much improved. Complained of but little pain in the head; pulse 88, and soft. A powder, containing two grains of calomel with about a tenth of a grain of opium, was ordered every three hours. After this no other brain symptoms made their appearance. The protrusion from the skull gradually increased in size until it reached the height of three-fourths of an inch, presenting the appearance of a large mass of granulations, in which pulsation was distinctly visible. The treatment consisted in occasionally sprinkling it with powdered chalk and the application of a light compress. After the second week it began gradually to decrease, until finally it reached the level of the surrounding granulations, and then gradually cicatrized over. Two months after the

injury two large pieces of the outer table of the parietal bone exfoliated, leaving a healthy granulating surface. At time of discharge the wound had entirely healed, with the exception of a spot the size of a twenty-five cent piece. The cicatrix covering the opening in the bone was very firm, feeling as if new bone had formed beneath. Patient's intellect did not seem to be in anywise affected by the injury.

CASE II.—Compound Fracture of the Skull—Death—Autopsy.—T. Otham, aged 10 years. This little fellow was admitted on the morning of the 28th of Feb., with a compound fracture of the skull, sustained by falling from a five-story building, while attempting to fly his kite. The fracture was situated over the right superciliary ridge, but no depression could be detected. At the time of admission the patient was unconscious, suffering from the shock of the injury. His pupils were normal, and responded to light. Warmth was applied by means of the heater, and a stimulating injection was given. Reaction was established in twelve hours, when he was able to answer questions intelligently. Pulse, 150. The following day patient sank into a comatose condition, which continued for three days, at the end of which time he died.

Autopsy.—A post-mortem examination was made, and revealed a very extensive fracture of the skull. The frontal, parietal, and occipital bones were involved in the fracture, which also extended through both super-orbital plates. No depression existed, exceeding one-eighth of an inch. The vessels of the pia-mater were intensely congested, and greenish pus was found beneath the arachnoid, at the base of the brain.

CASE III.—Compound Fracture of the Skull—Operation—Death.—W. Mier, aged 13. Admitted March 22, 1861. (Service of Dr. Buck.) This patient fell through a hatchway, and sustained a compound fracture of the left parietal bone, with depression. On admission patient was unconscious; pupil of left eye more contracted than that of the right; right side of body paralysed. Four hours after injury patient was etherized; the wound was enlarged, and with the rongeur, enough bone was removed to allow the depressed portion to be elevated. The limits of the fracture could not be determined. The night following the operation, patient had convulsive movements of the left side of the body, with twitchings of the muscles of the right side of the mouth. Pulse the following morning, 130; quite strong. He was leached on the temples, and put under the use of tartar emetic, and cold applied to the head. Patient continued in about the same condition until the third day, when he showed some signs of consciousness, which lasted only for a short time. He gradually grew more comatose, and on the seventh day died. No autopsy allowed.

CASE IV.—Fracture of the Base of the Skull.—John Gallagher, 18 years of age. This patient was admitted March 12, 1861 (Dr. Buck, attending surgeon), having about eight hours previously been injured by a bale of cotton falling on his head, from a height of eight feet. Patient at time of admission was perfectly conscious. Had free hemorrhage from the left ear, and from both nostrils; considerable ecchymosis of the upper eyelid of the right eye; pupil of the left eye more contracted than that of the right; vomiting; no paralysis. The next day reaction having taken place, patient was put on low diet, and tartarized antimony administered. Leeches were applied behind the ears. On the second day after the injury, paralysis of the left levator palpebræ was noticed, and a grain each of calomel and ipecac was administered every four hours. The third day after the injury delirium commenced, and the patient was with great difficulty kept in bed. Still he answered questions intelligently, though reluctantly. The hemorrhage from the ear continued. From this time patient gradually grew worse. Paralysis of the muscles of the left side of the face was noticed on the seventh day. The vessels of the conjunctiva of the left eye were injected, and the cornea gradually grew opaque. The hemorrhage

from the ear continued until the eighth day, when it gave place to a yellowish serous fluid, which continued to be discharged until his death, which took place ten days after the injury. No post-mortem examination allowed.

LONG ISLAND COLLEGE HOSPITAL.

DR. FRANK H. HAMILTON'S CLINIC.

April 12, 1861.

[Reported by EDWARD A. BROWN, Medical Student.]

Delay in Acquiring the Use of Language, supposed to be due to Tongue-tie, but probably to imperfect Mental Development.—A little girl, four years old, was brought to the clinic by her mother, who said she did not speak as distinctly as other children of her age, and she thought that she was tongue-tied. The child looked intelligent, had nursed well when an infant, and had always been well. On examination it was found she could project her tongue beyond her teeth and lips half an inch, which fact Dr. H. regarded as sufficient evidence that the condition of the frenum linguæ did not interfere with her articulation. Raising her tongue the frenum was seen to be normal in its dimensions. Dr. Hamilton took this occasion to make the following remarks:—There are two periods of life at which children will be brought to you to have the frenum linguæ cut. Soon after birth, when it is found that the child does not nurse well, or at all; and from the third to the seventh or tenth year, when a delay occurs in the acquisition of language. In the first of these examples, the parents or friends seldom fail to attribute, as a cause of the refusal or inability to nurse, a shortness of the frenum. But you must remember that a child may be unable or refuse to nurse because it is feeble, or has a sore mouth, or has been kept too long from the breast, and hence lost the instinctive faculty or desire; it may be owing to the mother's milk being distasteful, or to its not flowing readily, or the nipple may be too small or contracted. Indeed, it is my opinion that some one of these causes will explain most of these cases. I am certain that I have never been able to trace it to a malformation of the frenum. I have cut the frenum occasionally to gratify the parents, but I am not aware that it ever did any good. Some gentlemen are of the opinion that, if the tongue cannot be lifted freely from the floor of the mouth, or projected beyond the lips, the child cannot nurse. I think this is an error. The tongue can grasp the nipple without being either protruded or lifted from the floor of the mouth; by mere contraction of its muscles it can be sufficiently thickened, and made to swell upwards towards the roof. I am sceptical, therefore, in relation to the benefit supposed to be derived from cutting the fillet, for this purpose. I do not speak of adhesions of the tongue to the floor of the mouth, but only of malformations of the fillet. In the second class of cases also I am equally sceptical in relation to the effect of this frenum in preventing distinct articulation, or even in producing lisping or stammering at a later period of life; but I wish especially to speak of its supposed influence in examples of delay in the acquisition of language, or of indistinct and imperfect articulation.

The causes of this delay are, according to my observation, deafness, partial or complete, in consequence of which instruction in sounds cannot be communicated to the child; or idiocy, partial or complete. Perhaps in some few cases other causes, such as being kept at play with children who are much younger, and who do not themselves speak distinctly, or a peculiar quiet and non-loquacious temperament; but in no case have I been able to convince myself that it was due to the frenum. When it is due to deafness or well-marked idiocy, the parents pretty soon make the discovery of the true cause. The examples of which I wish particularly to speak, therefore, differ from either of these. I have met with them quite often, and of some of them I have made notes, which I will give to you. I think they are all examples of slight

impairment of the intellectual functions, but in which the mind is not so much impaired as to discourage a hope that language will be acquired, and the child eventually show as much intelligence as other children. It is very important to make out these cases clearly, because they usually demand only that the parents should take unusual pains to instruct the children; and especially as we may, in a great measure, relieve the anxiety of the friends by assuring them that it is not likely to be permanent. I have heard it said of a distinguished physician of my acquaintance, that he did not speak a word until he was seven years of age.

The case before us is not so pertinent as some which I shall relate to you, for the child is quite young, and she already talks a little.

Delay in Acquiring the Use of Language, probably due to a Convulsion, and consequent slight Impairment of Intellect.—Nov. 1852. E. P.—, æt. 3, always healthy, except that he had a convulsion three months ago—only one convulsion, and this lasted but a few minutes. He now looks well and intelligent, says "papa" and "mamma," with two or three other words. Frenum rather short, yet not sufficiently so as to cause any impediment.

Loss of Use of Language from a Convulsion.—Henry Sercester, æt. 3. An intelligent-looking child. Until three weeks before he was brought to me he could talk "well and plain." He then had a fever, accompanied with convulsions. He has had a discharge from both ears since he was one year old, which still continues, and was unabated during the fever. His hearing was impaired. He complained much of the time, during the continuance of the fever, of his head. Two weeks have now elapsed since his complete recovery, and he has not spoken a word. He answered promptly and correctly all questions put to him, even when addressed in a somewhat low tone, but his answers were made only by intelligent signs. He laughed and shouted, but did not articulate sounds. It is my belief that the convulsions and fever interrupted his mental operations, and that he had forgotten how to speak, and therefore did not readily recover his speech, because he was partially deaf. It is possible that his brain has suffered some positive and permanent injury.

Delay in Acquiring the Use of Language, in consequence of Impaired Intellect. M. D.— (of Buffalo), æt. 6, was brought to me April 4th, 1857. Never had convulsions, but during her third and fourth summer had diarrhœa often. Hearing perfect. Parents thought that she was not at all dull intellectually—they had only noticed that she had not learned to talk. She could say "pa" and "ma," and nothing more. I noticed, however, that she looked dull, and moved her head idiotically. The parents believed that the difficulty was solely in the frenum linguæ, and could not think that she was less smart than other children. The frenum was natural, but in order to gratify the parents I cut it freely. I have never learned the result.

Delay in Acquiring the Use of Language, in consequence of Convulsions, and probable Impairment of Intellect.—Charles Pearson, of Buffalo, æt. 6, brought to me Feb. 22d, 1856. From the time of his birth until he was four years old he had convulsions. Never had any since, but had remained perfectly well up to that time. He could hear well, and looked intelligent, yet he could only say "pa," "ma," "pony," with a few other words. I assured the parents that with much painstaking they would teach him to talk.

Delay in Acquiring the Use of Language, in consequence of a Fall on the Head, and Impairment of the Intellect.—Aug. 2d, 1853. James Fanlin, æt. 6, of C. W., had had a fall on his head when he was two years old. Was unconscious for two days. When brought to me he appeared to be in tolerable health, but his bowels were tumid. His hearing was perfect, but he could only say pa, ma, with a few other words. He looked tolerably intelligent, but not perfectly so; and I told his parents that his delay in learning to talk was due to a degree of mental weakness. They thought that he must be tongue-tied. His frenum linguæ

was normal, and I declined to cut it, but directed for him tonics and chalk mixture, to improve his general health, and regulate his bowels.

Delay in Acquiring the Use of Language at Eight Years; no cause ascertained, but probably due to a moderate Impairment of the Intellect.—Margaret Sullivan, æt. 8 years, of Geneva. Hearing perfect; tongue not constricted in its movements; utters simple sounds clearly and distinctly; had large and well-formed head; countenance intelligent. Her parents affirm that she has always exhibited all the intelligence of other children, and more than many of her mates, yet she can articulate only eight or ten words, such as "die, Jane, horse, go away, cow, mother;" the last word requiring a rapid motion of the tongue. She articulated distinctly.

As it is plainly due to neither a lack of the sense of hearing, nor to the absence of control over her tongue, I can only ascribe it to some partial lack of intelligence.

Foreign Body in the Ear.—April 9th, 1861. A little girl, six years old, was brought into the dispensary, and by Dr. Hamilton presented before the class with a bead in the right ear, which was placed there nearly a year since. No attempt had been made to remove it, except by her grandmother. It was found impossible to persuade her even to an examination. She could not be held for a moment without her screaming violently. Dr. Hamilton remarked—that before the introduction of anæsthetics, surgeons were often compelled to leave these foreign bodies in place, or submit the little patient to the greater risk of having the drum ruptured, and the membrane of the meatus torn by the rude thrusts of the probe and forceps. Now they can be easily removed, after placing the child under the influence of an anæsthetic. Therefore, with children, the attempt should never be made until the patient is rendered insensible. He mentioned that he had never more than once found, when a child was brought to him, the drum perforated, either as a result of a previous ulceration, or of violence employed in the efforts made to extract the foreign body; and that, what was supposed to be a pebble, or glass bead, was the smooth and hard bones of the internal ear, which the friends have been attempting to extract. Ether was administered freely to the child, after which a small glass bead was removed from the meatus auditorius externus with the probe alone, and without difficulty, although it was lying at the bottom of the meatus.

American Medical Times.

SATURDAY, MAY 18, 1861.

MEDICAL EDUCATION.—BELLEVUE HOSPITAL MEDICAL COLLEGE.

WE hasten to assure the reader, when his glance falls from the caption to the first sentence of this article, that we have no intention of inflicting upon him a lengthy disquisition on medical education. When we say this, we do not mean to disparage that subject. Hackneyed it certainly is to such an extent that not a few readers would regard a fresh discussion of it in the light of an infliction. Yet, none will deny the importance of the subject; and so long as evils are to be corrected, abuses to be exposed, defects to be remedied, and improvements to be made, it claims diseussion, more especially at the hands of medical journalists. We do not intend to discuss any of these points now; but in making this disclaimer we give our readers fair warning that we may test their powers of endurance in this way at some future time. A vast deal has been written on medi-

cal education during the last twelve years, and a great many speeches have been made at the annual meetings of the American Medical Association, and on other occasions. How much has been effected by these efforts? Not much. This is not saying that medical education has been stationary during this period. Far from this—it has advanced in many respects; but we believe we are correct when we say, that the speakers and writers on this subject have accomplished little. We think this fact may be in a great measure explained without jumping to the conclusion that speaking and writing on the subject are of no avail. Reforms have generally been proposed requiring great and sudden changes, for which we are not prepared; requirements have been often advocated which demand uniform legal enactments in the different States—in short, a large share of the measures which writers and speakers have considered as essential, are simply impracticable. Some measures which have been proposed are of questionable propriety. Some measures, undoubtedly desirable, might be effected by united action on the part of all, or at least the majority, of the medical schools; and this, for various reasons, is not readily obtainable. Moreover, the spirit with which reforms have been advocated has not always appeared to be of the most unexceptionable character. There has been with some, apparently, a disposition to depreciate the efforts of those to whom the interests of medical education are committed, and to impute to them unworthy motives. Nothing surely can be more unwise than this, if it be an object to accomplish speedily good results.

Tiresome as the subject of medical education has become to many, its importance demands that it shall continue to be discussed. And the general question which should guide the discussion we conceive to be this: By what practicable means is medical teaching to be rendered more efficient, and a higher standard of medical attainment to be secured? In viewing this question, we must take as a stand-point the circumstances belonging to our own country. It is impossible, nor is it desirable, that our institutions should be modelled in all respects after those of Europe. For the present, little is to be expected from legislation, either in the way of support, encouragement, or protection. Medical education, with us, is left in the hands of those to whom, in a selfish point of view, it is of far less importance than to any other class in the community, viz. the members of the medical profession. It will, perhaps, not be so always, but so it now is, and so it will be undoubtedly for some time to come. This fact alone places the subject on a basis widely different from that on which it rests in other countries.

In order that certain of the practicable means for the advancement of medical education shall be successfully carried out, concert of action on the part of medical schools is necessary. We believe this is to be done only by a permanent organization of a body composed of representatives of all the schools. This we know has been attempted, and it would seem to afford small encouragement for another attempt, when it is considered that nearly the whole of the session of the so-called Convention of Delegates from the Schools, subsidiary to the American Medical Association in 1860, was occupied in discussing a proposition aimed at spring or summer schools. But it is to be borne in mind that very few schools were represented in that body, and, moreover, the propriety of making such a body an

appendage to another body, so mutable, as regards attending members, as the American Medical Association, is more than questionable.

We fear that by this time the reader begins to distrust the assurance given in the first sentence of this article. We have written more than we had intended, relative to the discussion of medical education, but we repeat, we have no intention of entering into the subject at this time. The creation of a new medical school in this city, in connexion with Bellevue Hospital, suggests some remarks bearing on the subject of medical education, and to these we shall devote the remainder of the article.

They who have been conversant with the medical schools of this country for the last twelve years, must have observed a change which has been steadily progressing, and which is certain to eventuate in this result, viz. the concentration of medical classes in a few metropolitan cities of our country. Twelve years ago numerous medical schools in villages and the smaller cities had large classes; some of them, indeed, larger than the classes attracted to the metropolitan schools. The tendency to centralization has been more and more apparent from year to year, and now, with perhaps not more than a single exception, none of the schools which, by way of comparison, but in no derogatory sense, may be called provincial, can boast of large classes. In the meantime, in the cities which from their size and position are *par excellence* metropolitan, the classes have not diminished, and in certain of them they have greatly increased. The cities to which reference is especially made are, New York, Boston, Philadelphia, and New Orleans. The increase in the two latter (for reasons which we will not stop to consider) has been greater, up to the present time, than in the two former of these cities.

All effects must have adequate causes; and for the change just mentioned, an explanation is afforded by the increasing importance attached to clinical and demonstrative medical teaching.

During the last twelve years a change in the manner of teaching has been going on, not less marked than the change having reference to medical schools. Written discourses on the theory and practice of physic, read, with scarcely any alteration, from year to year, were formerly acceptable enough, but they fail to meet the wants of the student of this day. He must have abundant bedside instruction in conjunction with didactic lectures; and the latter, if read, not spoken, must be from manuscript which does not show too much the traces of time. It does not satisfy to describe surgical operations and illustrate them on the cadaver, but their performance on the living body must be seen. Plates and manikins will not suffice for the study of obstetrics, but cases of labor must be furnished and obstetrical operations witnessed. It will not answer to enunciate from the desk the astonishing developments of recent physiological research, but the organs of the body in action must be exhibited by skilful vivisections. These requirements will lead medical students more and more to points where they can be most fully met, and here we have the reason of the law of centralization, the operation of which is so obvious.

The resources for clinical and demonstrative teaching in all the practical branches of medicine are, of course, greater in proportion to the size of a city; and hence, in this respect, New York takes the precedence over any other city in this country; and if these resources are developed

and made available to the fullest extent for medical instruction, its precedence as the great centre of medical education is a mere question of time.

The Bellevue Hospital Medical College starts on a basis which is as yet untried in this country on so large a scale. The plan of engrafting a medical college on a hospital of such size at once commends itself to those who feel an interest in medical education. The great advantages are sufficiently obvious. Will it succeed; that is, will the plan be successfully carried out, and will it be sustained? Originating with the Board of Commissioners who control the hospital and other public charities, and receiving their hearty co-operation, with a faculty consisting of working men, and all practised teachers, it certainly will not fail through any lack of energy and experience on the part of those who have pledged their efforts for its success. It remains to be seen how far their efforts will meet with a response from the medical profession of this country. If the short course of lectures on military surgery and surgical operations, recently given under the auspices of the college, by two members of the faculty,* be in any manner a precursory sign, the first session of the Bellevue Hospital College will form an important epoch in the history of American medical schools.

Thus far the undertaking has met with nothing but encouragement and approbation. It is to be hoped that the institution will be so conducted as to deserve the good wishes with which it begins its existence. Let it pursue a straightforward course, earnestly bent on the means of success, but always respecting the rights and privileges of others. Let it enter the lists with other schools, guided by a spirit of honorable emulation, scorning acts which proceed from a petty rivalry. In short, let it establish its claims to confidence and support on its fidelity to the objects for which it has been created, viz. to aid in developing and rendering fully available for medical instruction the immense resources of Bellevue Hospital and other public charities; and not only is it safe to predict for it a brilliant success, but it will contribute to the prosperity of other schools which now exist, or may hereafter exist, by aiding to hasten the time, which must surely come sooner or later, when the city of New York will be the great centre of medical education, as it is the great commercial metropolis of the American continent.

THE WEEK.

VACCINATION will not be a needless protection to the volunteer regiments that are now crowding the Military Depôts of this State. Already they have begun to experience the sad consequences of waiting the operation until the virus shall be applied, according to regulations, when they are actually mustered into the Federal Army. Not only has small-pox occurred in several military companies soon after their departure from this city, but we have actually seen a case of the disease in a volunteer *in transitu* to the pest-house from a military rendezvous in Broadway! And at this moment a son of one of our medical friends is down with varioloid, which he contracted by exposure as a volunteer at another rendezvous. New York city is the grand dépôt of small-pox infection for the Western Continent, and we thank the Surgeon-General of our State Militia for issuing

* Professors HAMILTON and Wood.

the following Order. He has rightly judged it unsafe for recruits to be quartered in this city without vaccination. This Order will produce valuable statistics, and will save some lives :—

STATE OF NEW YORK, SURGEON GENERAL'S OFFICE, ALBANY,
May 12, 1861.

GENERAL ORDERS, No. 4.

The Surgeons of Regiments will *immediately upon their formal appointment* as such, proceed to vaccinate every member of the Regiment.

They will forward at as early a day as possible to this office the following facts :—

1. The number of men vaccinated.
2. The number upon whom existed evidence of previous vaccination.
3. The number susceptible to the virus.
4. The number susceptible to the virus who had been previously vaccinated.
5. The age, as near as possible, of those susceptible a second time to the virus; with such remarks as may, in the opinion of the surgeon, illustrate more fully the above points.

By order of the Commander-in-Chief,

S. OAKLEY VANDERPOEL, Surgeon-General.

SOYER inspired greater confidence and gratitude in the minds of Crimean soldiers than RAGLAN or any military leader; for the art of cooking as applied by SOYER in the camps and barracks of a nearly ruined army, at once redeemed them from debility, dysentery, and other maladies. A recent Report of the Central Association of Relief makes the following excellent suggestions for the benefit of the Federal Army.

The dietary and cooking of the army is one of the principal gates through which disease attacks it, and it is even more true of volunteers than of regulars. According to the common rule, so many barrels of pork, beef, beans, sugar, so many bags of coffee, etc., are made over to the regiment for the week, divided among the companies, and that ends the care of the Government. The cooking of this food is a matter of company regulation, and they select, say two men from each company, *to guess how to do it*. "Beans," said Dr. Satterlee, "kill more than bullets."

Now imagine the beneficence of reform which should attach by Government authority a competent cook to each company—a man specially skilled in cooking in the best manner the few simple articles the soldiers eat. If necessary, a hundred such persons could be prepared in a month's time. And would not proper cooks going with the army be even better than good nurses going after it? Would not the percentage of illness be very seriously diminished by such a precaution?

* * * * *

The duty of preparing to meet such sickness as cannot be prevented, with skill and humanity, involves preparations for sending both medical men and nurses to the seat of war, when called for. Several considerations seem in place here. The necessity of these preparations will appear, when we reflect that in all probability 200,000 men will be in the field for one year—and 100,000 for three years—and that against the regular percentage of illness in so large a body as this, independent of the casualties of battle, some extraordinary preparations are required.

Moreover, these men are to go from a Northern healthy region—the largest part of them five degrees south of their *natural climate*, where, by the statistical tables, we find that the chances of illness and death in the army are about *doubled*; and many of them to a position in the extreme South, where the chances against them are *quadrupled*. Still further, the largest portion of those troops are raw, and the Mexican war proved, that while the *old* army lost 1.20 per cent. a month, the ten *new* regiments lost 1.79, and the volunteers 2.13—nearly double that of the old regulars!

Our troops are going, too, in the worst season of the year to begin a campaign; for before they are hardened to exposure, they are to meet the heat and miasmas of the more Southern climes. We must expect fevers, dysentery, catarrh, perhaps cholera (now indigenous), and it becomes us to be making every preparation which belongs to the volunteer associations, medical or feminine, against the time when physicians and nurses will be in great demand. We doubt not that a sagacious examination of the medical statistics of the United States Army would enable experts to foreshadow, with accuracy, the demands of the service, in this campaign, upon the kind of aid which we are engaged in furnishing. It is obvious that although women nurses are not provided for in the army regulations, yet they are capable, under careful regulations, of being most efficiently worked into the system, and their services, we have reason to think, would be most heartily welcomed. But they must be trained under the thorough system contemplated by our society to be efficient. It is a serious question whether, after advice from the Headquarters, a School of Cooks, who should be men, ought not, under medical direction, to be opened with the same general caution that surrounds our school of nurses?

WE are pleased to notice the manner in which the examination of candidates for graduation in the Medical College of Ohio was conducted at the recent commencement of that school. The PRESIDENT of the State Medical Society, Dr. COXKIN, in accordance with the instructions of the Society, appointed a commission consisting of Drs. McMEENS, KINEAID, DORSAY, and BONNER, who with himself formed a Board of Censors, to attend the examination of candidates for graduation. The examination was conducted as follows:—Each Professor wrote on the black-board ten or more questions, selected by himself or by any member of the Board of Censors, which the candidates were required to answer in writing; one hour was assigned to each Professor. The Censors were thus enabled to decide as to the medical and general qualifications of the candidates. This course of examination should be adopted in every College, and our State Medical Societies should insist upon the attendance of its Censors. There are Schools which affect to ignore such Boards; but if the Central Society assert its determination to have a voice in deciding as to the qualifications of graduates, it will triumph, because it has the profession to sustain its reasonable demands.

THE excitement which pervades the public mind has proved fatal to the Summer Courses of Lectures in many of the Northern Medical Schools. Would it not be well for those engaged in teaching to change the subjects to such as are immediately connected with the new duties which students are anxious to assume, as assistants in the medical corps of the army? Lectures on Surgical Dressings, Operations, &c., now prove unusually attractive to students in this city.

DR. IGNATIUS LANGER, of Davenport, Iowa, communicates to the Boston *Medical Journal* the following precious morsel of scientific intelligence:—"The latest chlorate of potash catastrophe has bridled that hobby for good, as previously it was difficult to separate here, the symptoms of the disease from those of the injudicious use of that otherwise useful remedy." The trifling manner in which the writer alludes to the universally lamented death of Dr. FOUNTAIN, a willing martyr to science, is utterly unworthy a member of a liberal profession. When we recall the generous devotion of Dr. Fountain to his profession; his varied and valuable

contributions on scientific medicine; the ardor with which he devoted himself to its advancement; and finally that crowning act in which his enthusiasm led him to sacrifice life in early manhood in order to solve a doubtful question of therapeutics, we feel that the fair fame of such a man belongs to the entire profession, and should be sacredly cherished, alike from disparaging insinuations and the sneers of envy.

It will be seen from the correspondence in another column that the Medical Board of Bellevue Hospital have tendered their services to the Governor of the State in the organization and management of the military hospitals which it may be necessary to establish in the neighborhood of the army when engaged in hostilities. We gather from the Surgeon-General's reply that this service belongs to the General Government, and that for the service of the State the arrangements have been made, through the Inspector, Dr. Agnew, with the Governors of the New York Hospital.

Obituary.

DAVID MEREDITH REESE, M.D., LL.D.

THE decease of this well known physician will be quite unexpected to the profession, so recently did he announce himself as convalescent. He was deceived as to the true nature of his disease, and was so encouraged by the first symptoms of improvement, as to regard his case as curable. He had long suffered with symptoms of cardiac disease, which, during the latter part of winter, became more manifest. The particular lesion was in the aortic valves, leading finally to dropsical effusion. For several weeks before his death the lower extremities became enormously distended, and large quantities of the effused fluid constantly escaped through abrasions. This condition resulted in mortification of the feet and legs, and upon this supervened tetanic symptoms, with which life was terminated, Monday morning, May 13. He was attended by Drs. Mott, Carnochan, and O'Reilly.

Dr. REESE was born in Maryland, about the year 1800. He graduated in medicine at the University of Maryland, March 26, 1819, his inaugural thesis being *De Mania Religiosa*; and settled in practice in Baltimore. He passed through the epidemic fever which devastated that city in 1819, and wrote a 12mo. pamphlet upon it soon after its disappearance. He was afterwards appointed "Professor of the Institutes of Medicine and Surgery and Medical Jurisprudence in the Washington University of Baltimore," and subsequently held professorships in the Albany Medical College, New York, and the Castleton Medical College, Vermont. It was about this time that Dr. Reese took up his residence in New York. He acquired so much professional and political influence as to be appointed Resident Physician to Bellevue Hospital, a position which he retained for several years, until the office was abolished in 1849.

In 1830 he brought out a new edition of Cooper's *Surgical Dictionary*, his most important literary undertaking. This work had previously been twice republished in this country—first edited by Dr. Dorsey, of Philadelphia, under whose supervision it passed through a second and third editions; and subsequently a fourth London edition appeared, which was republished with an appendix by Mr. William Anderson, of New York. The author issued a fifth and sixth London edition, and it was the latter which Dr. Reese edited. He also edited a seventh edition, which was published by the Harpers in 1848, with a Supplementary Appendix designed to embrace "all the recent improve-

ments in Europe, since the date of the former edition in 1838, and a record of the meritorious operations performed by American surgeons." The editorial notes contain much matter of interest relating to American surgery, but the historical portion is not sufficiently authentic.

On retiring from the hospital, Dr. Reese engaged in private practice, and soon after began the publication of a weekly medical journal, which, however, was soon changed to a monthly, in which form it has continued to be regularly issued up to the present time. It has been a periodical of no scientific merit, being the medium rather of the loose scandal afloat in the profession; its circulation and its influence have been limited.

Dr. Reese was one of the original members of the Academy of Medicine, and drafted its first constitution. He always took a deep interest in its affairs, was seldom absent from its meetings, and entered heartily into its discussions. He was a ready and fluent speaker, a good debater, familiar with parliamentary rules, and often succeeded in carrying his point by the skilful use of this knowledge. At the meeting of the American Medical Association held at Nashville, Tennessee, in 1857, Dr. Reese was elected second Vice-President. During the following year he gave a certificate in his official capacity to an expelled member, who was an applicant for the post of Resident Physician in the Blockley Hospital, Philadelphia. This person succeeded in his application chiefly through this certificate. The course of Dr. Reese created so much feeling in the profession, that at the next meeting of the Association he was compelled to offer an apology for his course; the apology was accepted, and the subject dismissed. On the reorganization of the New York Medical College last year, Dr. Reese was appointed to the Chair of Practice of Medicine, and during the past winter gave a full course of lectures.

As a writer, Dr. REESE was widely known not only in medicine, but in politics, religion, &c. He wielded a rapid and vigorous pen; but he was neither happy in the choice of subjects, nor in the manner of treating them. His arguments were too often specious, his style inflated, and his illustrations inapt. He exhibited an almost total want of power of discriminating the true character and motives of men, and was thus frequently led to attack with great vehemence the best members of the profession, and attribute to them motives which a generous mind would scorn to entertain. This unfortunate peculiarity brought him in constant and unfriendly collision with his professional brethren, and completely nullified his influence. His most useful papers were his reports to the American Medical Association, the last of which, on Medical Education, is replete with mature and well digested views of this all-important subject.

The following is a list of his published works, as far as we can ascertain:

Observations on the Epidemic of 1819, as it prevailed in a part of the city of Baltimore; comprising an accurate history of its origin, progress, and effects, as far as they can be ascertained; to which are added by way of appendix, some remarks on the medical treatment of the disease, as found successful in the hands of the most distinguished members of the profession. Baltimore, 1819. *Humbags of New York: being a remonstrance against popular delusion, whether in Science, Philosophy, or Religion.* New York, 1838. *Hydrostatics, Hydraulics, and Pneumatics.* Philadelphia. *Introduction to the Sciences.* Philadelphia. *Medical Lexicon of Modern Terminology.* New York. *Mechanics.* Second Book of Philosophy. Philadelphia. *Phrenology known by its Fruits.* New York, 1836. *Quakerism vs. Christianity, being a reply to S. H. Cox's Quakerism not Christianity.* New York, 1834. *Treatise on Epidemic Cholera.* New York, 1833. *A Brief Review of the First Annual Report of the American Anti-Slavery Society.* New York. *Letters to the Hon. William Jay, being a reply to his Inquiry into the American Colonization and American Anti-Slavery Societies.* New York, 1836.

MEDICAL COLLEGE OF OHIO.—The following changes have occurred in this school:—Professors Hibberd, O'Leary, and Keene have resigned, and Professor Graham has been transferred to the Chair of *Materia Medica*; Prof. Lawson has been appointed to the Chair of *Theory and Practice*; Dr. Armor, of Dayton, to the Chair of *Institutes of Medicine*; and Dr. Comegys to the Chair of *Chemistry*.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, March 27, 1861.

DR. A. C. POST, PRESIDENT, IN THE CHAIR.

SUDDEN DEATH FROM UNSUSPECTED BRIGHT'S DISEASE.

DR. A. CLARK presented a specimen of Bright's Disease of the Kidney, with the following remarks: There is nothing novel in what I have to say, but there are so many instances in which Bright's disease produces its mischief, arriving at the fatal point before we are induced to appreciate it, that perhaps we cannot have too many specimens presented illustrating that fact. These two kidneys were removed this afternoon. They are specimens of fibrous disease, with here and there a serous cyst; are much below the ordinary size, neither weighing over two ounces. The cortical portion has nearly disappeared, the whole structure being fibrous and tough without being hard. The history of the case is this: A young gentleman, in the practice of Dr. S. Conant Foster, had been rather ill for some time, but not sufficiently so to be taken from his occupation as a clerk. For some time it was noticed that his countenance was rather pale, and twice within the last few weeks those who were intimate with him, had noticed a little swelling of his face. This is about the whole of the history previous to the fatal attack, which I will recite. He had the habit of biting his nails, and had bitten the thumb nail so close to the flesh as to produce a little soreness. The pain consequent upon this was very severe, and depriving him of sleep, he was accordingly advised to take a certain quantity of Squibb's preparation of opium (*liquor opii compositus*). Taking twenty-five drops, and it producing no effect, he took another dose, in an hour, of the same quantity, and still a third dose, of about the same amount, making something like eighty drops in the course of two hours. This was Monday evening. On Tuesday morning, about three or four o'clock, he was visited by some of the family, and was sleeping quietly. At a later hour, if I remember rightly, his brother reported that he was awake, and appeared to be cheerful. At seven o'clock Dr. Foster was called, but he found him deeply comatose, his breathing was nearly obstructed by spasmodic closure of the larynx, so much so as to render it necessary in his view to introduce his finger to see if there was any obstacle. In doing this he drew the tongue forward, and the patient afterwards breathed freer, but there was no return of consciousness. At eight o'clock the Doctor sent for me to see him. Then he was, as before, quite insensible, one pupil was moderately contracted, and the other quite decidedly dilated. The question was, What influence had the opium upon this condition, and how far is it produced by special disease to be ascertained? The condition of the pupils, and especially the mode of breathing, seemed to exclude the idea of opium being the cause—the breathing not being the long deep breath of opiate poisoning, but it was of a character such as is seen in overwhelming cerebral disease—an attempt at inspiration, the larynx moving downwards, but no air entering, then another attempt, and still another, and perhaps a fourth, and lastly, a more vigorous one, the larynx opening and the lungs being gradually filled; the attempts at breathing being as frequent as in an ordinary healthy person. This kind of breathing continued as long as he lived; he could not be aroused by any pinching or by the use of the sole of the slipper upon the exposed skin, or by any means that we could devise. He died at four o'clock, in the afternoon of Tuesday. There was no oedema of the feet, nor any portion of his body, during this last day of his life, except, perhaps, a slight oedematous swelling of the thumb, which, however, could be accounted for by the injury to the flesh underneath the nail. Dr. Smith and Dr. Peters saw the young man at twelve o'clock, yesterday.

We had a suspicion that this young man's disease might be uræmia, and I took over at that visit a test tube for the purpose of examining the urine, but something prevented its being used, and the next visit I had the same tube in my pocket, but could not use it, as the patient was dying.

Autopsy.—In the post-mortem examination, in which Dr. Swift took the laboring part, the disclosures were as follow:—Lungs no further diseased than they usually are in persons who have had embarrassment in their breathing. The mucous membrane of the stomach, over most of its surface, was pale; on the inferior curvature, at points, congested considerably. The heart was in a healthy condition. The brain was unusually dry, and unusually free from blood; a little softening throughout its tissue, but no special softening. On the convexity were a few threads of what appeared to be lymphic matter, beyond which there was no evidence of inflammatory action. The ventricles did not contain an unusual amount of fluid, and the choroid plexus was rather pale. There was no local softening. The optic nerves were noticed to be of considerable firmness, which was supposed to account for the amaurotic symptoms. There appeared to be no disease of the grey ganglion of the brain. The kidneys presented the appearance which can be studied on inspection of these specimens. The urine, which was taken from the bladder, was of a marked color and opaque; it has not yet been examined further than to ascertain that a few drops of nitric acid threw down a very heavy whitish precipitation. The chief interest for reciting the case is, that every little while we are all of us surprised by an unexpected death occurring either through convulsions or coma, or in some other way, when we have had very little reason, perhaps none, to suspect the existence of any material change in the kidney. It is proper to say that this young man had syphilis three years ago, for which he was treated by mercury.

MALIGNANT DISEASE OF THE PERIOSTEUM.

DR. JAMES R. WOOD presented a specimen of tumor of the thigh, and gave the following history of the case: A year ago last month I was consulted by a gentleman from Kingston, N. Y., who had a tumor on the lateral and internal aspect of the thigh. This swelling first made its appearance about ten months before, and had been gradually increasing, giving rise to occasional attacks of pain and constitutional disturbance. It was believed to be a malignant disease, and amputation was proposed. He went home, returned to the city again, and consulted Dr. Parker, who agreed with me in my opinion. I was requested about a fortnight after this to amputate, which I did. The case did perfectly well, the stump healed by the first intention, except where the ligatures were placed, and the patient appeared to grow fat. I heard from him occasionally either through his physician, Dr. Von Hovenburgh, or his friends, and until up to February 7, when I was told that he had some trouble about his lungs, that he had had a tumor growing upon the sternum, and another upon the clavicle. During the month of February he died. The tumors that appeared upon the sternum and clavicle were all, I have no doubt, of the same character as the tumor of the thigh here exhibited. This tumor commenced in the periosteum, and was of a malignant character, being made up of bony material and cerebriform cancer. It is not usual, I believe, that this disease commences in the periosteum; but, on the contrary, first shows itself in the medullary cavity of the bone, and extends from the centre to the periphery. There is a good deal of hardening of the bone at different points, but at the upper portion there is a very marked fatty degeneration. A well executed picture, representing the parts in a recent state, was also shown.

DR. CLARK stated that we were apt to be ungarded in our statements in relation to the recurrence of cancerous tumors, and illustrated the fact by citing the following case: A gentleman, said Dr. Clark, having a large pulsating tumor on the inferior portion of the scapula, was desirous that it should be removed, for particular reasons, if it

would give him any chance for a few months of life; and it was removed. At the time of its removal it was supposed to be the only malignant tumor about him. From some accident in the operation he died, in consequence of a hemorrhage, within thirty hours from the time of the removal of the tumor. I made the post-mortem examination. He had malignant disease of the inferior and posterior surface of the clavicle that cut it nearly half through; he had also a fungous malignant growth in the cavity of the knee-joint; and, in addition to that, a small cancerous tumor, of the size of a bean, forming in the coats of the colon. What I was about to say was, that had he survived the operation, and had the wound done well, it would very soon have been said that the cancer returned in the clavicle or knee-joint, and in such a case as that I can conceive it possible that two or three cancers might be removed in succession, and it might be said that they returned, when, in truth, they existed at the time of the first operation.

CANCEROUS DISEASE OF THE RECTUM.

Dr. WOOD exhibited a second specimen, taken from a lady of this city, about forty years of age, who some seven years ago first complained of pain, at times excessive, in the right sacro-iliac synchondrosis. She was treated for it by several physicians. When I saw her, about eight months ago, she complained of pain referable to this point, and to the point of the coccyx. After a careful examination I could find no other symptom than that of pain on pressure. She stated that she was very much constipated, and that when passing her feces there was a good deal of pain. I examined her per rectum, and found that I could reach with my finger a point of constriction. There was then no abnormal discharge. I treated her with iron and iodine. She appeared to be relieved by this treatment, and went to the sea-shore, but when she returned she was still suffering from the pain, and some little discharge from the rectum. Upon examination of the point over the sacro-iliac union I found a little puffiness. This continued to increase, and with it the difficulty in voiding the feces, until it was almost impossible to obtain a passage except by the use of saline cathartics, which I gave in small doses. I introduced a bougie, and found the constriction of the rectum high up. She continued to grow worse, and a week before she died Dr. Clark saw her with me. She then had a tumor over the sacro-iliac symphysis, perhaps the size of half a goose's egg, and it fluctuated, but it was not opened. There was then a good deal of very offensive discharge from the rectum. She died from exhaustion, and, upon making a post-mortem examination, I discovered no pus in the tumor, but in its stead cancerous matter, which was likewise deposited in the adjacent bony structures. The viscera of the pelvis were more or less agglutinated by the malignant deposit. The probabilities are, that the disease commenced in the bone, and then attacked the soft parts, involving the rectum secondarily. The gut on the left side was comparatively healthy. The case is interesting on account of the long continuance of the symptoms, the fact of its being treated by different physicians for seven or eight years, and malignant disease not suspected until it was pronounced, as I have stated.

EXTENSIVE DISEASE OF THE TIBIA, ETC.

Dr. SANDS presented a specimen of extensive disease of the tibia, implicating the knee-joint, on behalf of Dr. Parker, who saw the case in consultation. The specimen was remarkable on account of the extent of the disease and also on account of the very insidious character of the symptoms prior to the removal of the limb. It appears that Dr. Belden, whose patient the boy was, was in attendance upon a brother, who was suffering from cardiac symptoms complicating rheumatism, and in one of his many visits his attention was incidentally called to the condition of this patient. Dr. B. found that he was suffering from slight febrile movement, and there being no local disease present, he paid very

little attention to the case. On the following day the constitutional symptoms increased materially, there being an exceedingly rapid pulse, heat of skin, and delirium. These symptoms continued to increase in severity for three or four days, when Dr. Clark was called to see the patient. At that time the boy complained of pain in the leg, but could not locate it exactly. There was no tenderness on pressure over the crest of the tibia; there was, however, noticed a slight puffiness towards the ankle-joint. I believe that the opinion arrived at was that the case was one of fever, with this intercurrent local disease. A week after that, the swelling increasing, Dr. Clark thought that the case was probably a surgical one, and at that time Dr. Parker was called in and first saw the case. There was then considerable swelling of the leg, but very little pain or tenderness; there was, however, fluctuation discernible upon the inner and posterior aspect of the leg, and at the situation of the head of the tibia externally. Dr. Parker advised a deep incision on the under and outside of the limb, which was accordingly done, and a large quantity of pus was evacuated. From that time until the 15th of March, nothing of importance occurred, although there was noticed a puffy swelling of the knee-joint, which was thought to be due to serum. On several occasions amputation was contemplated, but was not deemed advisable from the existing circumstances. He continued to grow worse, and I saw him on Friday last, rather accidentally. There was then a swelling on the outer side of the leg at its upper part, which was evidently an abscess. Dr. Belden opened this, and the operation gave a very decided solution as to the character of the fluid in the joint, as there was a large escape of pus. Amputation of the thigh was decided upon, and performed on Sunday last.

A very careful examination of the specimen proves it to be one of very extensive disease of the cancellar structure, and probably also of the compact structure of the tibia, extending from an inch above the inferior extremity of the bone quite up to the articular cartilage. The medullary cavity through all this extent is filled with a cheesy mass, composed of fibrin, broken-down pus, and fat cells, with crystallized margarine. The disease has extended to the cartilage of incrustation, which is much softened on its attached surface. This is also the case with the articular cartilage of the femur, which fact goes to prove that the disease progressed from below upwards. The patient had done well since the operation. At one point along the inner side of the tibia there has evidently been an attempt at re-formation, as a considerable amount of bony deposit has been thrown out from the periosteum.

Dr. PARKER remarked, that the case illustrated very beautifully the effect of pressure in causing the absorption of certain parts of the articular cartilage. This is the third case of the kind, remarked Dr. P., that I have seen within the last three months. One of these patients was six years of age, another nine, and this one fifteen. Two of the cases proved fatal.

Dr. CLARK asked if the abscess might not have been secondary to the febrile movement, inasmuch as these local symptoms were so insidious.

Dr. PARKER remarked that it was the first case of the sort that he had met with which was not attended by very severe local symptoms.

Dr. POST was also inclined to regard this, in that respect, as an exceptional case.

Dr. WOOD remarked: I saw a case at Stamford with Dr. Haight, a boy who complained of pain in his tibia. He was attacked in New York, and his suffering was so great that his friends took him home at once. When I saw him the pain in the tibia was intense, and all the symptoms of osteitis were present. He died in consequence of the absorption of pus. No post-mortem could be obtained.

I saw a little girl, some six years old, who was taken with pain pretty much in the same way. It was considered to be rheumatism, and she was treated for it by her physician. The trouble, however, increased, and she became de-

lirious; I saw her some twenty-four hours before she died. I then found that she was complaining of rheumatism of the shoulders, knees, and ankles, in a word she was suffering from toxæmic poison. After she died, I had the post-mortem examination, and found pus in all these joints; there was also an abscess in the upper end of the tibia, but no communication existed between it and the joint.

DR. MARKOE. This case (Dr. Sands's) differs from the ordinary forms of necrosis, and presents the rare variety in which the inflammatory action is set up in the cancellar structure and does not proceed with such rapidity as to destroy the vitality of the bone before that inflammatory action can result in the formation of pus. These were the cases in which Velpeau recommended a trephining of the bone with a view to allow the escape of pus.

SERO-CYST OF BREAST.

DR. PARKER presented a specimen of sero-cyst of the breast, removed from a female fifty-two years of age. The tumor had existed for about six months, but gave no evidence of pain or tenderness on pressure. Dr. Parker saw her about this time, and as the growth was supposed to be malignant by some, a couching needle was introduced, and some serum escaped. An operation was advised, and the tumor removed, when it was found to consist of a sac, which contained probably a pint of fluid. Dr. P. thought the specimen a remarkable one, as occurring in a person of those advanced years.

PLEURITIS, PERICARDITIS, ETC.

DR. LOOMIS presented a specimen with the following history. The patient from whom it was removed was admitted into Bellevue Hospital on the 24th February, with Potts' disease, extremely debilitated. He was put upon tonic treatment, and nothing occurred worthy of note until the 10th of March, when he was attacked with pneumonia of the left side. On the 14th he complained of intense precordial pain, and on the 16th an exocordial murmur was heard over the whole of that region. His pulse being feeble, veratrum viride, morphine, and stimulants were prescribed. The pulse was soon brought down to 80, and kept there until the 24th of March, when, notwithstanding the continuance of the treatment, it ran up to 140; and on the 20th the patient died. On post-mortem examination, the left lung was bound down by recent adhesions, and about six ounces of serum were found in the pleural cavity. The visceral and parietal portions of the pericardium were completely covered with a plastic exudation about half an inch in thickness, with bands of adhesion at different points. Some portions of the left lung were discovered in the second stage of pneumonia.

ERYSIPELATOUS INFLAMMATION OF UMBILICAL PIT—PERFORATION OF PERITONEUM.

DR. SWIFT presented a specimen of a portion of the anterior abdominal wall, with bladder and uterus attached, taken from a female infant, aged seven months, who died at the Nursery and Child's Hospital. The patient, about a week before death, was found suffering with constipation, intolerable nausea, contracted pupil, and withal was very restless at night. The day following, an erysipelatous blush appeared over the umbilical pit, which was much indurated. Lead and opium wash were prescribed, and continued the following day, when a small opening made its appearance. The next day a poultice was applied, which succeeded in softening somewhat the hardened tissue. There was some little hemorrhage about this time, which necessitated the application of nitrate of silver to control it. The child from this time commenced to sink, and died on Friday last, without any convulsions, and without any signs of excessive loss of blood. There was no tympanitis or tenderness over the abdomen. On post-mortem examination, directly opposite the blush on the inside of the abdominal wall, the peritoneum was very much reddened, and perforated at a point where it reflects itself from the bladder on the abdominal wall. No decided peritonitis

existed, notwithstanding about 3 ss of sero-purulent fluid was found in the peritoneal cavity. The matter had followed its way down to the point of perforation by means of the umbilical processes. There was no trouble found about the umbilical vein and artery, nor about the liver. Dr. S. presented the specimen because, on looking up the subject, he had not been able to find a case where erysipelas attacked that particular portion of the body at that age, and ended in perforation of the peritoneum.

The Society then adjourned.

Correspondence.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

January 21.—There is a case in the Infirmary under Professor Simpson, from Ireland, that, when admitted for vesico-vaginal fistula, was found to present the following complications:—Cicatrical bands across the ostium vaginae; entire obliteration of urethra, and recto-vaginal fistula. Restoration of the urethra has been effected by the continuous wearing of a piece of lead-wire made to traverse as near as possible the proper site of the urethra, the posterior end of the wire being brought out through the fistula, and brought into juxtaposition with the anterior so as to form a ring. In remarking upon vesico-vaginal fistula to-day, Professor Simpson mentioned in fitting terms the labors of Dr. J. Marion Sims, particularly calling the attention of the students to the fact that Dr. Sims owed his success and fame to his great perseverance, which caused him to perform even thirty operations to ascertain the best way. Professor S., in describing the operation, said that a good instrument to hold and facilitate the paring of the edges of the fistula had yet to be discovered. Assisting Professor S. some time ago in this operation, I noticed that he transixed the edges with a slightly curved needle set in a handle, and then cut around it. His tubular needles do not seem to me as serviceable as his transverse, which are made with their curve on the flat and the eye near the point, so that they can be threaded with the wire after the needle is pushed through. A case under the care of Dr. Keiller was mentioned, to show what may be accomplished in almost hopeless cases. In this case, by repeated operations, Dr. K. had succeeded in, as it were, making a new anterior wall to the vagina. One case has, however, been seen in London, in which so much loss of tissue has occurred as to make it useless to attempt the operation. To show the length of time metallic sutures can remain in the flesh without causing irritation, Professor S. instanced a case of Dr. Coghill, of Glasgow, where, after a perfectly successful operation for vesico-vaginal fistula, a suture happening to be overlooked, remained until the woman's accouchement, months afterwards, without its presence being suspected. Mr. Edwards, to-day, in lecturing upon diseases of bone, mentioned the case of a gentleman of ample means, who consulted all the most celebrated men for the relief of a supposed neuralgia. He went upon the continent, consulting all the celebrated practitioners there without relief; he tried the famous German baths; he went to Madeira; in fact tried everything. Finally, he went to his home in Hampshire, with his leg flexed to an acute angle upon his thigh, and his limb so terribly full of pain as to necessitate the use of a special rail-carriage. The surgeon here, drawing bow at a venture, trephined the tibia, three or four drops of pus escaping. Immediate and complete recovery followed. In this operation care must be taken that the trephine does not entirely perforate the bone, for death has occurred in at least one instance from wound of the posterior tibial by the trephine, hemorrhage to a great extent having been suffered to take place.

Medical News.

APPOINTMENTS.

NEW YORK HOSPITAL.—First Surgical Division—Dr. J. L. LITTLE, Resident Surgeon, in place of Dr. T. B. Ward, resigned. Dr. G. R. CUTTER, Senior Assistant, in place of Dr. Little. Dr. F. G. STURGES, Junior Assistant, in place of Dr. Cutter. Second Surgical Division—Dr. J. J. HULL, House Surgeon, in place of Dr. S. B. Tuthill, resigned. Dr. H. M. SPRAGUE, Senior Assistant, in place of Dr. D. B. St. John Roosa, who has been appointed Assistant Surgeon of the Fifth Regiment; Dr. ALFRED NORTH, Junior Assistant, in place of Dr. Sprague. The Medical Division is constituted of the following gentlemen:—Dr. Charles E. Hackley, House Physician; Dr. James G. McKee, Senior Assistant; Dr. Town, Junior Assistant.

PENNSYLVANIA.—Lewisburg Infantry—Assistant Surgeon, THEODORE S. CHRIST. Fourth Pennsylvania Regiment—Surgeon, J. R. DUNLAP. **BROOKLYN.**—Fourteenth Regiment—Surgeon, J. M. HOMESTON; Surgeon's Mate, J. L. FARLEY. **VERMONT.**—First Regiment Vermont Volunteers—Surgeon, E. K. SANBORN; Surgeon's Mate, WILLARD A. CHILD. **MASSACHUSETTS.**—First Regiment—Surgeon, Dr. S. A. GREEN; Assistant Surgeon, Dr. Z. B. ADAMS. New Light Artillery Company—Dr. LUTHER PARKS, Jr., Surgeon.

NAVAL MEDICAL BOARD.—A Board of Medical Officers will convene at the United States Naval Hospital on Flushing Avenue, Brooklyn, on Saturday, June 1, 1861, for the examination of candidates for admission to the Medical Corps of the Navy of the United States. The following surgeons compose the Board:—Samuel Barrington, M.D., President; John A. Lockwood, M.D., and C. H. Wheelwright, M.D., Members; Passed Assistant Surgeon, John Y. Taylor, M.D., Recorder. Gentlemen desiring permission to appear before the Board must make application to the Honorable Secretary of the Navy, stating their residence, place, and date of birth, accompanied with respectable testimonials of moral character. Candidates are eligible between the ages of twenty-one and twenty-five. The pay of an Assistant Surgeon at sea, when first appointed, is \$1,340. The highest pay under the existing law, for a Medical Officer in the Navy, is \$3,390. The difference in the rate of compensation is determined by the length of service. The vacancies in the grade of Assistant Surgeons are unprecedentedly large, affording an opportunity for young medical men entering the Navy, more favorable than has occurred before for many years. Gentlemen seeking further information are invited to call on Dr. Lockwood, of the Naval Hospital, a member of the Board. There are, under the new order for enlarging the Navy, thirty-nine places to be filled.

We learn from the *Boston Medical and Surgical Journal*, that a Commission, consisting of Drs. George Hayward (Chairman), S. D. Townsend, John Ware, S. G. Howe, J. Mason Warren, S. Cabot, Jr., W. J. Dale, G. H. Lyman, and R. M. Hodges, has been appointed by the Governor of Massachusetts to hold stated meetings and consult upon all the various matters relating to medical arrangements necessary for the health and safety of the State troops. Drs. Hayward, Townsend, Ware, Warren, and Cabot, have been appointed as an examining committee to all applicants for the office of Surgeon or Surgeon's Mate. Dr. S. G. Howe has been sent with the troops to report on their actual condition. The use of chloroform by the various regimental surgeons is unconditionally forbidden, and an abundance of ether has been supplied in its place.

MEETING OF STATE MEDICAL SOCIETIES. **OHIO.**—The Annual Meeting of this Society will be held at Ohio White Sulphur Springs, June 25, 1861. **MASSACHUSETTS.**—The next Annual Meeting of this Society will be held at Boston, May 29. **PENNSYLVANIA.**—The State Medical Society will meet at Pittsburg on the Second Wednesday of June.

CONNECTICUT.—The State Society will hold their Annual Meeting on the fourth Wednesday in May.

THE BELLEVUE HOSPITAL MEDICAL BOARD TENDER THEIR SERVICES TO THE GOVERNMENT.—The Bellevue Hospital Medical Board have unanimously tendered their services to the Governor of this State in the organization or charge of such military hospitals as may be needed by the government. The following are the proceedings of the Board, and the reply of the Surgeon-General of the State of New York:

THE MEDICAL BOARD TO GOVERNOR MORGAN.

NEW YORK, May 6, 1861.

To his Excellency Edwin D. Morgan, Governor of the State of New York:

SIR: At a special meeting of the Medical Board of Bellevue Hospital, held on the 4th instant, the following preamble and resolution were unanimously passed:

Whereas, at the call of the President of the United States, an army is rapidly organizing for service in the field; and

Whereas, military experience has demonstrated the necessity for the establishment of hospitals in the neighborhood of troops exposed to the risks of battle and the diseases incident to climate, season, and camp life; and

Whereas, by a natural classification of such diseases in hospitals, the services both of physicians and surgeons may be useful to the government, therefore,

Resolved, That the Medical Board of Bellevue Hospital do hereby offer their services to the Governor of the State of New York for such duty as physicians and surgeons in the organization or charge of military hospitals as may be needed by the government, and may not conflict with the privileges of the medical staff of the army.

ISAAC WOOD, M.D., President Medical Board.

JNO. W. GREENE, M.D., Secretary Medical Board.

Alonzo Clark, M.D.; B. W. McCready, M.D.; Isaac E. Taylor, M.D.; Geo. T. Elliott, M.D.; B. F. Barker, M.D.; Jno. W. Greene, M.D.; A. L. Loonis, M.D.; Austin Flint, M.D.—Visiting Physicians of Bellevue Hospital. James R. Wood, M.D.; L. A. Sayre, M.D.; J. J. Crane, M.D.; Stephen Smith, M.D.; Willard Parker, M.D.; A. B. Mott, M.D.; W. H. Church, M.D.; J. W. S. Gouley, M.D.; Ch. T. Mier, M.D.; Frank H. Hamilton, M.D.—Visiting Surgeons of Bellevue Hospital.

REPLY OF SURGEON-GENERAL VANDERPOEL.

STATE OF NEW YORK, SURGEON-GENERAL'S OFFICE, ALBANY, May 8, 1861.

John W. Greene, M.D., Secretary Medical Board, Bellevue Hospital:

DEAR SIR: I am directed by the Commander-in-chief to acknowledge the receipt of the resolutions passed by the Medical Board of Bellevue Hospital, and to express his sincere thanks for the noble and patriotic offer contained therein. This department has, however, made ample preparations with the Governors of the New York Hospital, and has appointed Dr. Agnew to take charge of the same. When the forces are mustered in the service of the United States, they pass from the control of this department and become the charge of the general government. It is impossible to say, in the struggle upon which the country is now entering, what may be the future demand upon the labors of our medical men. Should it become necessary to call to our assistance increased aid, we shall gladly avail ourselves of the manly offer of the physicians and surgeons of Bellevue.

Respectfully yours,

J. OAKLEY VANDERPOEL, Surgeon-General.

OGLETHORPE MEDICAL COLLEGE, GA.—At the late commencement, twenty-one gentlemen received the degree of M.D. The *ad eundem* degree was also conferred on fourteen and the honorary on two. Total, thirty-seven.

The *Chicago Medical Journal* reports two cases of poisoning in a family, caused by the eating of candy colored yellow by orpiment.

Original Lectures.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM,

DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE.

BY

M. GONZALEZ ECHEVERRIA, M.D.,

OF PARIS,

LATE ASSISTANT PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND THE EPILEPTICS OF LONDON, CORRESPONDING MEMBER OF THE ANATOMICAL SOCIETY OF PARIS, FELLOW TO THE MEDICAL SOCIETY OF LONDON, ETC. ETC.

LECTURE III.

GENTLEMEN: Each of the senses has a nerve destitute of general sensibility, and a protective apparatus to which nerves of sensibility and movement are distributed. It is not usual to see all these distinct nerves altogether paralysed; they are generally separately affected in one or both sides, and occasionally connected with paralysis in other parts of the body. Anæsthesia in olfactory nerves, or *anosmia*, may exist alone or with hemiplegia. It may be congenital. When alone, it is commonly due to alteration in the pituitary membrane or lesion upon the nerve after syphilis, tumors, fractures, or likewise after its over-excitation as observed by Frank, Althaus, and others. Anæsthesia of smell is very frequent in hysteria, accompanied with loss of taste. In order to avoid a mistake when examining the state of olfactory nerves, no irritant odor should be employed, as its impression upon the fifth pair brings on sneezing. Hysterical *anosmia* disappears easily. Electricity has then a great power to re-establish the abolished function: one of the reophores is applied to the pituitary membrane and the other to the skin of the face, but the electric current should be very mild, short, and often repeated.

In the eye we have to consider loss of sensibility in the optic nerve or amaurosis, and paralysis in each of the muscles. Amaurosis comes either of derangement in the organ of vision, or lesion upon the nerve or on the brain, or is the result of other diseases, such as diabetes, albuminuria, eruptive or typhoid fever, intestinal worms, and also of intoxication by belladonna, sulphate of quinine, lead, mercury, and sulphuret of carbon. The sudden appearance of amaurosis in one or both eyes is a sign of lesion in the nervous centres or in some place outside of the eyeball. If there is with it loss of smell, the lesion is in the base of the brain. When sight is gradually lost, the cause of the disease is in the eyeball. Coexistence of amaurosis with albuminuria is so important and frequent that the former is considered a premonitory symptom of the latter. It appears previously to the renal disease, and although associated with it, has no influence whatever on its prognosis, neither is it in relation with the quantity of albumen in the urine. It has, however, been observed in albuminuria that cephalalgia accompanying amaurosis is a sign of immediate or approaching death.

Amaurosis is generally of slow march, excepting in hysteria or when due to fevers, neuralgia, or intestinal worms. Sight is not always totally lost, and under such circumstances, the patient presents one or various of the several changes in vision. Whenever internal or external pressure is acting upon the eyeball, sight is shortened and objects look troubled and as though under a shadow. In other cases, ambliopia or diminution of sight precedes amaurosis. As to the external appearance of the eye: *nystagmus* or its continuous convulsions is observed in congenital amaurosis; usually the eyeball is prominent, with the pupil turned upwards and without co-ordination in its movements; sometimes you will find it very much enlarged, or the contrary, and even exhibiting a marked contractility by a reflex movement after impression upon some sensible part of the retina. I need not remind you

that in examining the contractility of the pupil the other eye must be closed to avoid synergetic actions.

In amaurosis from alteration in the media of the eye there always remains a variable sensation of light. When this sensation is referred to the lower part of the eye and amaurosis is suddenly produced, you may suspect apoplexy in the choroides displacing the retina, as under such circumstances that is a frequent symptom. You may likewise ascertain the state of sensibility in the retina after the existence or loss of the peculiar luminous sensations created by methodic pressure upon the eyeball and discovered by Dr. Serre (d'Uzès), who calls them *phosphenes*.

With the ophthalmoscope you will observe in amaurosis from cerebral lesion, that the optic nerve and the retina are atrophied, the blood-vessels being considerably diminished in size, and the optic papilla exhibiting a brilliant white and tendinous color. If the veins are larger than the arteries and more dilated upon the papilla, and if this appears diffuse or dark, and infiltrated with fatty granulations, there is an obstacle to circulation, causing atrophy of the retina and acting either internally or externally upon the eyeball. In amaurosis from albuminuria there is a fatty degeneration of the optic papilla, or hyperæmia and ecchymosis in it, or oedema in the retina.

I have mentioned the symptoms exhibited by the eye itself in amaurosis, but I may remark that the general state of the patient must be carefully examined in order to recognise whether amaurosis be not symptomatic. If there be syphilis a special treatment will be required; anthelmintics in cases of helminthiasis; and if there be neuralgia in any of the orbital branches of the fifth pair, it should be cured in the first place. Strychnia and iodide of potassium are employed against hysterical and asthenic amaurosis. In these cases direct stimulants to the eye are of great advantage. One grain of strychnia or veratrine in half a drachm of cerate to rub in on the temple. In amaurosis from neuralgia an ointment with one grain of atropine in one and a half drachms of cerate, to be rubbed on the forehead and brows, is very efficacious. In obstinate amaurosis the application of a blister or a seton to the back of the neck is a good remedy, particularly when the blister is dressed with the above ointment with strychnia. I will likewise mention the use of antispasmodics, internally taken, and of the balm of florarenti, sulphuric ether, ammonia, cajeput oil, etc., which are employed for friction on the temples, or the three first also in vapors directed to the eye. Repeated purges and emetics have been very much praised by some physicians. Scarpa, who was the first to resort to this latter means, prescribed three grains of antin. potassio-tart. in aq. destill. f $\frac{3}{4}$ iv. Two tablespoonfuls, to be repeated every half hour until nausea be induced. Magendie, Finella, Tavignot, and others, had recourse to acupuncture successfully against amaurosis. The operation is performed in the following manner: One of the needles is introduced into the sclerotic and the other into some part of the skin corresponding to the orbital nerves; or one needle may be put to the temples and the other to the occiput: the operation lasts from ten to twenty minutes. Although beneficial, acupuncture has several inconveniences; it brings, in certain cases, inflammation and great pain in the eye, and in others it must be continued for a long time, before sight is restored. You may, however, derive greater advantages from the use of magneto-electric currents. In applying electricity to the eye you should always be aware of the nature of the current to be employed. A continuous galvanic current has a direct influence upon the optic nerve, and if not very mild you risk producing loss of sight. An unfortunate accident of this kind happened to the celebrated Duchenne de Boulogne, who, not knowing the effects of the continuous current upon the optic nerve, applied it to a patient afflicted with paralysis of the facial, and caused the already-mentioned mischief. Therefore, I should advise you to prefer the magneto-electric current, and to use it, applying the reophores on two different spots on the temple.

Among the nerves supplying the muscles of the eye, the third pair, or *oculo-motorius*, is the most frequently paralysed. The ordinary cause producing paralysis in either of them is exposure to cold and wet, but it may likewise be due to tumors compressing the nerve, syphilis, or diseases of the brain, under which latter circumstance their paralysis accompanies that in other parts of the body. It is very seldom that all the muscles of the eye are paralysed together. It only happens after fractures or serious injuries to the skull, or in profound lesion of the brain, being then attended with paralysis of the eyelids, protrusion of the eyeball, mydriasis, and loss of sight. One of the few curious instances of this kind, was observed by Verduc, in a painter, who possessed the power of taking the eye in and out of the orbit several times in an hour. This state, however, is extremely rare. In paralysis of the third pair, or *oculo-motorius*, the symptom which first strikes us is the drooping of the upper eyelid—*ptosis*. The pupil dilated, is turned outwards and downwards by contraction of the external rectus and superior oblique, there is protrusion of the eyeball, diplopia, and no longer accommodation of the eye to perfect vision.

If the fourth pair, or *patheticus*, be paralysed, the eye remains permanently turned upwards and inwards, and there is diplopia when the subject looks horizontally in front of him. The movements of rotation of the eyeball are abolished, as you may ascertain by fixing your sight on one of the blood-vessels in the conjunctiva whilst the patient inclines his head towards his shoulders, looking fixedly at an immovable object. This kind of paralysis is very rare; in such instances the patient keeps his head inclined towards the non-affected side, in order to avoid that peculiar diplopia which makes him see objects double, and one over the other.

Paralysis of the abducens, or sixth nerve, usually occurs with that of the third. When alone the pupil is strongly drawn inwards, and there is diplopia. Paralysis in the third and sixth nerves, and diminution of sight, are premonitory symptoms in progressive paralysis, as remarked by Landry and Duchenne de Boulogne.

Squinting is a symptom of paralysis in the muscles of the eye, but it may be met with in cases of contraction in the same muscles, or in the ocular aponeurosis. You will at once distinguish paralytic strabismus by the following signs: the eye is drawn towards the side not affected, contrary to what occurs in strabismus from contraction; if you close the other eye, the one affected regains its normal position or can be moved, whereas it remains fixed in paralytic strabismus. It may be likewise borne in mind that among the latter external strabismus is the most frequent, and as it is due to paralysis of the *oculo-motorius* there will be *ptosis* and the other symptoms alluded to.

The treatment of paralysis in the muscles of the eye is in relation with the originating cause. If produced after softening in the *crus cerebri* or any other lesion in the brain, its cure is very difficult, if not impossible. In cases of syphilis, rheumatism, or reflex paralysis, the disease is not obstinate. For rheumatic paralysis the application of a blister to the temples or frictions with an ointment of strychnine, nuxvomica, or veratrine, are very useful. Electricity applied in the manner already described is also very advantageous. Dr. Huut, of Manchester, has imagined a very ingenious and successful operation against paralytic *ptosis*. There is such a synergy of action between the elevator palpebre and the occipito-frontal, that it is impossible to raise the brow when the eye is closed, or to depress it when open. Therefore, the occipito-frontal may act in lieu of the elevator palpebre, and for that purpose Dr. Hunt performs the following operation: A flap of skin is removed after being circumscribed between two incisions—a curved one, extending from an ocular commissure to the opposite, and a second joining the extremities of the first, the edges of the wound are united by sutures; the result of the operation is, that the skin of the eyelid and that of the brow are continuous, and consequently that the occipito-frontal cannot contract without drawing the eyelid.

Paralysis of the trifacial arises from causes acting upon the nervous centres, upon the nerve itself, or from a traumatic peripheric lesion, as in the case reported by Ch. Bell, of anesthesia in half of the lips after extraction of a molar tooth. Anesthesia in the corresponding side of the face, with loss of smell, taste, and at times hearing, dryness in the pituitary, insensibility, and changes of nutrition in the conjunctiva and cornea, with *mydriasis*, or dilatation of the pupil, are the principal symptoms of paralysis of the trifacial. As to taste, it will only be lost in the anterior part of the tongue, where the lingual nerve is distributed; the gums are also swollen and torn, mastication becomes impaired, and the lower jaw hangs after paralysis in the pterigoides, the masseter, and temporal muscles. Amaurosis is observed in some cases of paralysis of the trifacial. A celebrated oculist, Dr. Taignot, resting upon pathological researches, has advanced that it is not the brain but the ganglion Gasserius which acts upon the retina, and therefore, that paralysis of the trifacial without amaurosis should be the sign of a lesion between the ganglion and the brain, whilst no lesion could take place upon the ganglion or its emergent branches without being attended with trouble in vision. This theory, however, is, in many cases, contradicted. What I have said as regards the treatment of paralysis in nerves of the eye is applicable to that of the trifacial, always serious if due to organic alteration in the brain or central parts of the nerve.

Facial palsy is more frequent than that of the fifth pair; it is usually observed in adults, particularly in men, and was first described by C. Bell. It may arise from a lesion upon the nerve or from a cerebral affection, coexisting then with hemiplegia and an impaired state of the intellectual faculties. If alone, it may be produced after tertiary syphilis, caries, tubercle or scrofula in the petrous bone. In scrofula the disease originates slowly and without pain. Apoplexy in a small extension of the medulla oblongata, abscess and extirpation of the parotid, and wounds in the face, may likewise be attended with facial paralysis. This may be brought on infants by the application of forceps, and always cures itself. But no cause of paralysis is more frequent than exposure to cold and wet. The disease very seldom takes place in both sides of the face, and may alternately exist in each of them. Commonly it appears suddenly, without any influence whatever upon sensibility, and preceded by no general symptoms. All the muscles of the face being supplied by the facial, you may deduce that its paralysis causes their relaxation, and therefore, that the brow in the corresponding side cannot be raised; the eyebrow is lower opposite, and drawn towards the middle of the face. The eyelids are permanently open after contraction of the elevator palpebre and the oblique muscles, as also by paralysis in the orbicularis which brings epiphora. The conjunctiva is dry, and constantly exposed to atmospheric action, becomes inflamed. The cheeks are flabby, the lips distended and drawn to the opposite side, and saliva and food involuntarily pass out of the mouth to the great inconvenience of the patient, who can neither whistle nor distinctly pronounce any labial letter. You will find that smell is imperfect after impossibility of dilating the nostril, and taste diminished by paralysis of the chorda tympani, and dryness in the mouth owing to loss of saliva. There is hyperesthesia of hearing, due to the relaxation of the tympanum after paralysis in its tensor muscle. The uvula and the tongue are diverted towards the opposite side, and deglutition is not easy by reason of paralysis of the digastricus and stylo-hyoides; but mastication is normal, as the pterigoides, the masseter, and the temporal muscle are animated by the fifth nerve. There are, in facial hemiplegia, painful spots behind the ear, in those places where the facial and auriculo-temporalis are inosculated. When the two facial are not paralysed the face is not changed, but the features are immovable, and the eyes and nose exhibit the appearance which I have just described.

Facial hemiplegia not depending upon alteration in the nerve, is generally cured, but at times is obstinate, and if

long-standing may determine atrophy in the paralysed muscles. It may happen that after a while the state of paralysis is changed by a permanent spasm in the muscles, as observed by Marshall Hall, Duchenne de Boulogne, and others. Reflex facial palsy is not serious, and under such circumstances the muscles retain their irritability, usually lost when the disease attends a cerebral lesion. One of the best remedies against facial hemiplegia is the application of electricity. Electro-puncture has also been successfully employed. Althaus advises not to use electricity during the permanent contraction of the paralysed muscle, but I think that in reflex paralysis, when contraction is not due to cerebral lesion, electricity may, on the contrary, be useful to restore normal condition in the muscles, as I have observed in similar states of the muscles in the limbs and neck. Strychnine and iodide of potassium should be administered internally to increase nutrition and nervous irritability. Externally, revulsives to the skin may be advantageous, and Dr. Jobert de Lamballe advises cauterization with hot iron as useful in obstinate cases. I would recommend you not to resort, in cases of reflex facial palsy, or any other kind, to bleeding and repeated purges and emetics, which only spoil the constitution without conferring any benefit whatever upon the patient.

Loss of hearing may be brought on by a disease of the ear, by cerebral lesion, alteration of the nerve itself, or by impediment to sound. It may follow several diseases: as continuous and eruptive fevers, diphtheria, and albuminuria, being with this latter less frequent than amaurosis and facial palsy. In hysteria, deafness is a common symptom, as I have before advanced, and is frequently connected with permanent noises in the ear. Many substances have a direct action upon the acoustic nerve. Sulphate of quinine, administered in considerable doses, produces deafness, in some cases permanent. Relapsing deafness is brought on by sulphuret of carbon, bromide of potassium, and most of the anæsthetic means.

It is not always easy to detect the cause of deafness from disease of the ear. It would be too tedious to review all the different symptoms in these diseases, and I will therefore only speak of treatment against nervous deafness, so common in hysteria, after continuous and eruptive fevers and diphtheria. This kind of deafness is cured by application of electricity to the ear. Duchenne de Boulogne, to perform this operation, fills the ear with water, and introduces into it a metallic tube continuous to one of the reophores, the other being applied to the neck, close to the ear. But you should be able to obtain the same results without filling the ear with water, and simply by moving the former reophore all along the different parts of the ear. The benefit of electricity is so certain in hysterical deafness and hyperæsthesia of the acoustic nerve, that Briquet affirms that the disease never requires more than two applications of electricity to be cured. Although there is no exaggeration in this fact, I may say that in hyperæsthesia of the ear, and in cases of noises, I have often seen them afterwards reappear, and not be permanently eradicated until the hysterical disease had been cured. Deafness after fevers, even when it has been of long standing and obstinate to other treatments, is easily made to disappear by the application of electricity. But you will meet with deafness after eruptive fever, diphtheria, and angina, which, after resisting the electric treatment and all others, cures itself in a sudden and strange manner. I had, not long since, occasion to see an instance of this kind, in a child who became deaf after scarlatina. He was considered incurable by an able specialist for diseases of the ear; deafness was so complete that the vibrations of a diapason applied to the head were not perceived; however, the child one morning, all at once, regained his hearing without the least precursory symptom.

I will call your attention to paralysis of the palate, coming after diphtheria, angina, or inflammation in the pharynx. It is always when the disease has disappeared that paralysis takes place by a reflex action; difficulty in

deglutition, with flowing of the liquids through the nose, and speaking through the same, are the first signs announcing the accident. Examination of the palate shows it to be relaxed and insensible, and the muscles, although paralysed, retain their irritability. The disease may last long, but generally cures itself in a short time, and galvanism is the best remedy for it.

I will make, in conclusion, a few remarks about lead palsy and wasting palsy. In cases of poisoning by lead, paralysis generally attacks the upper extremities, its first symptom being impossibility of extension in the wrist, and consequently its dropping, by paralysis of the extensors in the forearm; always affected in preference to the supinator muscles and interossei, which are never attacked. I have previously mentioned amaurosis and deafness after poisoning by lead; as to general sensibility, it is preserved, but the muscles in the abdomen often exhibit a high degree of hyperæsthesia, which may likewise be found in those of the limbs. From what I have myself observed in several instances, muscular irritability is only gone in cases of long-standing palsy, when atrophy is considerable. Electricity should be resorted to against lead palsy, the current mild, however, and repeated at intervals, for, if strong, it often afterwards brings painful cramps. Against hyperæsthesia in the muscles of the abdomen, electricity is an excellent remedy, as discovered by Briquet. The faradic treatment will never be sufficient to make lead palsy disappear; it is necessary to use, at the same time, drastic purgatives and iodide of potassium, ten or fifteen grains a day. This latter has a powerful and direct action upon the blood, to eliminate the poison; and you may judge of its effects from the disappearance of the bluish color always presented by the gums in cases of poisoning by lead.

Wasting palsy is *general* or *partial*, and mostly occurs in men independently from any primitive alteration in the nervous centres. The disease always appears in the voluntary muscles, generally after their over-action, or without perceptible cause. When commencing in the upper limbs, it is the thenar eminence which is first affected, the disease afterwards spreading to the forearm and the fingers, bending by disappearance of the extensor muscles. In some instances the spinal muscles are first atrophied, in others, those of the shoulder, the trapezius being first invaded; and in the end the arm shrinks, and loses all power of movement whatever. One of the earlier symptoms in the disease is weakness and loss of electric muscular irritability, with quivering and cramps in the limbs; the muscles, however, may, during that period, still obey the will. It is important to distinguish wasting palsy from fatty substitution in the muscles, due to paralysis in the nervous system and rest of the limbs. In wasting palsy, atrophy precedes paralysis, the nervous system keeps its integrity to the end, and if attained, it is consecutively. Neither is the distinction admissible, made by some authors, between *atrophic fatty palsy* in children (*paralysie graisseuse atrophique*, Duchenne de Boulogne) and other kinds of palsy, as the former is an abnormal and consecutive state of the muscles during the advanced stage of permanent paralysis. In children, the rule is to meet with reflex paralysis ("*paralysie essentielle*"), and if not temporary, it is attended with fatty substitution in the muscles; therefore, this state cannot be considered a distinct and peculiar affection, as is pretended by Duchenne de Boulogne.

It is at present impossible to fix the treatment for wasting palsy, generally running a fatal course. At an early period the application of electricity has, in certain cases, arrested the disease. Strychnia and iodide of potassium have likewise been successful in other cases; but I repeat, there is no certain treatment, and we are obliged to employ alternately the above means, jointly with hydrotherapeutic, and all others capable of restoring muscular nutrition.

Original Communications.

GUNSHOT WOUNDS:

BEING PORTIONS OF A LECTURE DELIVERED BY THE LATE

AMASA TROWBRIDGE, M.D.,*

SURGEON U. S. A.

Force of Balls.—I saw three soldiers at Fort Erie, during the siege of 1814, receive contused wounds from a cannon ball; they were lying together in a tent, the ball entered and carried away both legs of the first man, near the hip joints, shattered one of the legs of the second near the knee, and both legs of the third below the knees. In these cases there was but little appearance of pain or mental agitation; they were as composed and expected efficient surgical aid as though these wounds were of a trifling nature. The division and concussion of the parts so contiguous to the body of the first occasioned his death on the third day. He was quiet and easy until reaction took place. The second suffered amputation of the leg; the third, of both, and both recovered. * * *

Wounds of Joints.—Col. Miller, who commanded an expedition to Long Point, on the Canada shore, received a wound by a buck-shot passing through the capsule of the knee-joint. It was suffered to pass into extensive suppuration, he languished at Buffalo for several months, had his leg amputated, and died soon after the operation. I knew but little of his habits, or the state of his general system. Col. McNeil, at the battle of Bridgewater, received a wound by a ball passing a little above the patella and under the ligament, wounding the capsular ligament, and carrying away a portion of the condyle; there was much contusion of the parts; after suffering much pain, inflammation, and suppuration, he recovered with partial ankylosis of the joint; he was a man of good constitution and habits.

Fracture of Bones.—In gunshot wounds, where balls pass and fracture only the cylindrical parts of bones, fractured portions are sometimes thrown into the soft parts; here an opening ought to be made so that they may be cast out by suppuration. At the siege of Fort Erie, which lasted forty-seven days, many cases of this kind occurred among the officers as well as soldiers. Capt. Cilley had his thigh broken near the middle by a ball passing through it. On passing in my finger I could discover no bone in the track of the ball, but could find portions thrown out of their natural position, and resting in the adjoining muscles. Free incisions were made on the outer portion of the thigh to the shattered portions of bone; inflammation and suppuration followed, in a short time the bones were discharged, the limb was extended and supported by splints and bandages, and although three inches of bone were lost, a rapid recovery and a good limb followed.

Arteries and Nerves.—A ball may pass near a large artery, and divest it of all its surrounding support without its sustaining any other injury, but if a ball pass near a nerve, portions of the body depending on such nerve for its influence may become partially or totally paralysed for a time. Gen. Ripley was wounded at the sortie at Fort Erie, by a musket ball passing in on the left side of his neck, in the situation of the carotid artery and the third cervical vertebra; striking this, it passed out a little forward of the carotid artery on the opposite side. Paralysis and loss of use of both arms followed immediately; suppuration in a few days exposed both arteries to view; compress and bandage were used to prevent aneurismal enlargement. Exfoliation of a piece of bone followed. Deglutition was for some time difficult, and he suffered much from morbid secretions about the fauces; repeated bleedings, and other means,

saved the parts from excessive inflammation, and a recovery followed, with some distortion and inability to turn the head. The paralysis of the arms continued for the first three months, with a gradual change for the better. But an uncommon sensation was produced when the hands and arms were exposed to the air, particularly if the temperature was below that of the body. Pain in the parts and an uneasy sensation in the whole system would follow, which was relieved by warm applications and change in the temperature of his room.

Health of Patients.—Gunshot wounds are influenced by the general state of health, and their final effects cannot be known at their commencement.

Wadding in Wounds.—Extraneous bodies may be carried into the wounded parts; we may find the openings, and conclude the ball has passed out, yet the wounded part may contain pieces of wadding, portions of cloth, or some other foreign substance. Gen. Brown was wounded at the battle of Bridgewater; the ball entered the upper portion of his thigh, a little anterior to the trochanter major, and passed out over the inguinal glands; he left the army the next day, passed over to Buffalo, and from thence to Barker, on the south side of the bay. He suffered from inflammation and suppuration of the wounds for three weeks, after this he convalesced a short time and repaired to Fort Erie, taking lodgings in an armed schooner. Here secondary inflammation took place, with swelling, great irritation, and discharge of matter from the wound. A piece of woollen cloth was removed, the wound soon healed, and he resumed his active duties at the fort.

Wounds of the Thorax.—Major Trimble, at the sortie upon the British batteries, near Fort Erie, received a wound by a musket ball through the right portion of the thorax; it entered and divided the fifth rib near its cartilaginous extremity, passed through the lung and divided the same rib near its curvature towards the spine, and passed out. He was engaged at the time he received the wound, in carrying one of the enemy's block-houses. Blood flowed freely from his mouth and external wounds, respiration was at times nearly suspended, with feeble pulse and cold extremities. I shall not be able to give a particular history of his treatment, but I well remember, that but little hope of his recovery was entertained until the fifth day after receiving the wound. From the time of the accident to this period, bleeding from the external wounds gradually subsided, but the prostration of the system was great from the first. Reaction, however, took place, and so steady and continued was it, that he was bled six times within twenty days. It was to the repeated bleedings, together with the kind care of his friend, Col. McRea, who remained with him constantly, that I attribute his final recovery. After the close of the war he distinguished himself in the councils of this state (Ohio), and was employed by the General Government to transact important business with some of the western tribes of Indians. He was elected a member of the U. S. Senate in 1822. His fatigue and exposure at the west, the previous season, had aggravated an affection of the lungs, which proved fatal a few days after his arrival at Washington.

Skull Trephining where there is no Depression, especially when followed by Convulsions.—If a severe stroke is made on the skull by a musket ball, and the appearance of threatening symptoms follows, a perforation should be made through the skull, although there is no depression of the skull. * * * This piece of bone was taken by the trephine, from a soldier wounded at Sackett's Harbor. A spent ball struck the side of his head near the coronal suture, on the parietal bone; it denuded the bone and glanced off, carrying a portion of scalp with it. He suffered two days with symptoms of concussion, then recovered, and was apparently well for thirty days. After this he complained of pain in his head, nausea, and distress at the stomach, with chills and fever. This was followed in a few days by fits. I first saw him in one. There was a morbid state of the parts first injured by the ball, and a sanious discharge from a small fistulous

* Copied from his notes by his son, Wm. K. TROWBRIDGE, of Watertown, N. Y.

opening to the skull. I applied a large trephine and took out this piece of bone. You perceive a portion of the inner table was originally broken down, which must have rested upon the dura mater. There was considerable thickening of the dura mater directly under the injured bone, and some matter flowed on its removal. His convulsions subsided, and in a few weeks he was reported fit for duty.

Another Case.—A similar case occurred in my private practice a few years ago. A discharged soldier came from one of the western forts, and was almost daily afflicted with convulsions; he had suffered in this way for nearly nine years. They were caused by a blow on the head with a cane. On examination; I found a depression on the upper portion of the occipital bone. He had obtained some relief from repeated bleedings. I recommended the use of the trephine, and he submitted to the operation. This is the piece of bone removed. You perceive both tables were fractured and depressed, and the inner one is much thicker than the outer. Inflammation and a discharge of matter followed for three months, when the wound healed, and the patient entirely recovered. I have operated in several other cases, where epileptic fits followed injuries of the head, with the same favorable results. I have always found the dura mater much thickened, and in a morbid state.

No Records by Surgeons.—During the progress of the late war, the surgeons who accompanied the various divisions of the army were sensible that the country through which they passed, and to which they were called to exercise their professional duties, had before been the theatre of war, and human distress from disease, whose cause was the same that there surrounded them. They witnessed the sudden changes of atmosphere peculiar to countries surrounding large and extensive lakes, and the local and general predisposing and exciting cause of disease. They witnessed the many fields on which armies had been encamped, and on which surgeons had put in requisition all their talents, skill, and experience, to control or mitigate wasting pestilence and disease. They frequently viewed decayed forts where severe and destructive contests had been carried on by contending armies, or the more sanguinary results of partisan warfare, or savage barbarity, where singular and extraordinary cases of surgery had been presented. And yet not a trace of the history of these occurrences could be found that would impart one ray of light to their anxious and inquiring minds. Nor even could they trace the names of those on whom rested those arduous duties. The minds that had been directed to the investigation of diseases that then prevailed, and to the direction of the system of the medical department generally, had treasured up all their knowledge and observation only to pass into oblivion and forgetfulness with themselves. A similar result will probably follow the opportunities of and researches of the medical gentlemen who were attached to the army in the last war. Dr. Mann has published a few facts gathered while on the northern frontier. You will read these with much pleasure and profit to yourselves.

All agree, who are experienced in these matters, that the differences in gunshot wounds are referable to three general causes, viz. the kind of body propelled, the velocity of the body, and the nature of the parts injured. I will not take up your time by bringing to your view the absurd opinions of former surgeons in relation to this kind of wounds. They were contused, and lacerated, and always attended by inflammation and suppuration. This induced them to believe that the body which produced the injury must have been heated, or poisoned, which had an additional effect with mechanical violence. The modern surgeons, better acquainted with the laws of projectiles, know that a ball, however great its velocity, never acquires in its passage any perceptible degree of heat, and that there is nothing poisonous in powder. The usual severe consequences following a wound made by so obtuse a body as a musket ball, sometimes passing with an immense velocity, and sometimes nearly spent in its force, are easily accounted for and explained.

These wounds are always attended with more or less contusion and laceration; and some portions of the sides of the wound, or divided parts around the track of the ball, are deadened, and must be thrown off by inflammation and suppuration, before the healing process can commence. A wound of this description cannot unite by the first intention, except sometimes where a spent ball passes out. The effect of balls on soft parts of the body is similar in some respects to what is produced on hard substances. The opening which the ball makes in entering is always smaller than that by which it passes out; at the first point the parts are depressed, at its exit they are raised and prominent.

Wounds of Joints, with Fracture.—The surgeon is often called to decide, in cases of comminuted fractures, whether the articulating extremities and cartilaginous portions of a joint are involved in the immediate injury by gunshot wounds. It may be observed, as a general rule, where the primary disease is of this nature, that the secondary results will probably destroy the patient; or, if he passes that stage, the affected member will be lost, or the life of the person placed in great jeopardy. It is the duty of the surgeon to amputate soon after the injury. If immediate amputation is deferred, for the process of suppuration, as some advise, more lives may be lost than limbs saved. I know it is difficult to apply this rule to all cases in practice. I have often seen cases occur where organic lesion seemed to demand immediate amputation, and yet a favorable result followed without the use of the knife. But, gentlemen, if you practise surgery, you will frequently be placed where you must make an immediate decision; and the result of that decision will settle the question, as to the life or death of your patient, and reflect honor or disgrace on your profession, and your own reputation.

Shock.—It is urged against immediate amputation, that the person is much agitated, and his system depressed at the time of receiving the injury, and that the operation should be deferred until reaction takes place, and the suppurative process is tried, and then amputate, if the limb cannot be saved. This shock of the system, when a ball passes through the extremities, is not experienced as often as some writers imagine. In cases where a ball passes through large muscles, the person is not at first sensible of pain, or even that he has received a wound; his garments being stained with blood is the first intimation he has of the accident. Even if the bone is fractured, he is first made acquainted with it by inability to use the limb. Larger wounds of this kind cause but little disturbance to the general system, until some time after they are received. I had an opportunity to witness this phenomenon in many instances during the last war.

Col. Aspinwall, at the battle of Chippewa, received a gunshot wound near the elbow-joint; the ball pierced the condyles of the humerus, and yet he appeared to be but little affected by it; he remained on the field until the battle was ended, and then immediately suffered amputation, without much pain or disturbance.

CASE OF CHRONIC HYDROCEPHALUS.

By J. B. REYNOLDS, M.D.

PHYSICIAN TO THE CHILDREN'S DEPARTMENT OF THE DEMILT DISPENSARY.

EMMA W——, an infant (illegitimate) three months of age, was brought to me, suffering with the above-named disease. The father was the subject of constitutional syphilis. The mother was healthy, but had suffered much mentally during late years, having been deserted by the father of this infant during the latter part of her gestation. Maternal grandfather and uncle died with phthisis. This infant was one of seven children, all living; but all of whom had been subject to obstinate cutaneous eruptions, and suffered from incontinence of urine at night. Four brothers had chronic otorrhoea beginning at the fourth

month. Some years ago Dr. E. H. Parker told the mother that one of these children was a good subject for water on the brain—it escaped. At the birth of this child the mother was alone, and was obliged to attend to herself and infant; to cut the cord, take care of the afterbirth, etc. The labor was over twenty-four hours, and more difficult than those previous. At the time of birth she noticed that the head was quite large, that the bones were not well developed, but soft, especially the two halves of the frontal. At the end of the first month the head began to increase in size, and the scalp assumed a tense shining appearance; the stomach became irritable, and the bowels constipated. On the 1st of February, the infant, then being three months old, was brought to me. I found it with a large head, the bones yielding to pressure, the sutures widely separated, the parietal bosses remarkably prominent with absence of bone substance, and the coverings of this part of the brain bulging out strongly. The two parts of the frontal bone were tilted markedly forward, leaving a wide coronal suture, and pushing down, by pressure from the orbital plates, the eyes, so that but about half of the cornea appeared above the lower lid. The infant gave no signs that it could see. The whole head was remarkably sensitive, the most careful manipulation giving pain and causing the child to cry piteously. It was very irritable while awake, but slept much of the time, though never out of its mother's arms. The stomach rejected most of its food; the bowels were constipated; had no convulsions. It was ordered a laxative and iodide of potassium gr. ij., three times a day.

Feb. 4th.—Child much improved, was less irritable, stomach quiet, bowels moved twice in twenty-four hours, nurses well. I now measured its head and found its greatest circumference 20 inches, and from tip to tip of ear over top of head $12\frac{1}{2}$ inches. From a number of measurements that I have made I find that the head of a healthy child of three months averages about $16\frac{1}{2}$ inches in greatest circumference, and $8\frac{3}{4}$ inches over top of head from tips of ears. Continued iodide of potassium, and gave a small dose of grey powder with confection of senna once a day. *Feb. 11th.*—Continued improvement, is brighter and sleeps well at night, urine increased in quantity, but head larger, 20 $\frac{1}{2}$ to 20 $\frac{3}{4}$ inches in circumference, and $12\frac{1}{2}$ over top. Continued powders, and increased iodide of potassium to grs. iij. three times a day. *Feb. 17th.*—Sleeps and eats well; bowels regular, and stomach quiet. Head 21 inches around, and $12\frac{1}{2}$ over top. Increased iodide potassium to gr. iv; powder every second day. *Feb. 24th.*—No change from last date, except the increase in size of head to $21\frac{1}{2}$ inches around, and $13\frac{1}{2}$ over. The axes of eyes are straight, though turned down from pressure of orbital plates of frontal bone. Ordered in addition to other treatment cod-liver oil and syrup of the iodide of iron. *March 8th.*—Has been growing finely; quite fat and strong. Though the head is growing, yet the force of the pressure of the fluid upon the brain seems to be lessened, as the infant now can see, and with an effort can raise the cornea free above the lower lid. Head measures 22 inches around, and 14 inches over. *March 20th.*—Irritability has returned, with sudden starts and sharp cries at night, nurses less; stomach and bowels normal. Mother says that the head seems to her to be more luminous; 23 inches around, and $14\frac{1}{2}$ over the top. Continued the oil and iron, but stopped the iod. pot. for a few days. *March 24th.*—Is better; watches the movements of the candle. Ordered very small doses of the bichloride in tr. cinch. comp. and tr. junip. comp. *April 3d.*—Child still a little irritable; the bichloride, juniper, etc., sickened her at first, and increased but slightly the quantity of urine. Returned to small doses of pot. iod.; $23\frac{1}{2}$ inches around, and 15 inches over. *April 14th.*—Irritability passing off; quantity of urine natural in amount again; head in circumference $24\frac{1}{2}$ inches, and over top $15\frac{1}{2}$ inches. *May 11th.*— $25\frac{1}{2}$ inches around, and $16\frac{1}{2}$ over; increase doses of pot. and oil. *May 25th.*—Continues to grow finely; limbs hard and plump; head very transparent, but covered with the usual quantity of hair; bowels a little too free; moving five times

in twenty-four hours; amuses itself watching the play of the kitten, but when desirous of attention it will pronounce quite plainly the word mamma; head $25\frac{1}{2}$ inches around, and $16\frac{1}{2}$ over. *June 9th.*—On the afternoon of the day of last date the child was neglected and allowed to cry for two hours, and its head was accidentally struck against some article of furniture, leaving an indentation in the bone. It vomited and "acted strangely." There was considerable lachrymation, and the eyes could not be raised above the lids; no strabismus; its appetite failed, and did not improve for several days, and during this time there was considerable tremor of the limbs. Now all is again quiet; the bones are growing and closing up the sutures; that between the two frontal bones being nearly closed; 26 inches around, and 17 over. *June 29th.*—During the last twenty days the child has been steadily improving in flesh, and with all the functions in good order; the bones of the head continuing to increase in extent and firmness. During the last few visits my attention has been attracted by a peculiar cough; so curious is it, that many persons have remarked it. During one of these visits I made the following note: "It has a peculiar cough, similar to that of a child 10 to 15 years old; and after the cough, it will endeavor to clear its throat by a forcible, hoarse, expiratory cough or groan similar to that of an old person." It is easily startled by sudden noises; the bowels are opened four or five times in the day; and the mother says that the urine is notably increased; the skin has always been cool and fresh; the pulse has ranged about 130; respiration normal. Though nearly eight months old there is no appearance of teeth, nor is the saliva greater in quantity than in a three months' infant. For the past twenty days the head has remained about the same in size. I have never been able to hear the cephalic bruit; no change in the treatment. Since June 9th, the head has increased only about half an inch in circumference, but has remained the same over the top; being only $26\frac{1}{2}$ inches around, and 17 over. *Aug. 30th.*—Since last date nothing worthy of note has occurred; slight increase in size of head, 27 inches around, and $17\frac{1}{2}$ over; continued cod-liver oil and iron, but stopped pot. iod. *Sept. 15th.*—I think that I did wrong to stop the potassium, for I now found the fontanelles raised and tense; the arms have again assumed the position in which I found them during the first months of treatment, drawn closely to the chest. While sailing in a ferry-boat, though daily accustomed to take the fresh air in this way, it became sick, and vomited; head measures 27 inches around, and 18 inches scant over the top; returned to pot. iod. *Oct. 2d.*—Child has been gradually growing worse; very fretful; emaciating rapidly, as it nurses but little, and refuses to feed; head and feet cold; no convulsions. *Oct. 8th.*—Died from exhaustion; it was 11 months old; the gums and cheeks were the seat of ulceromembranous stomatitis. I was unable to procure an autopsy.

Upon reading the history of this case it will be seen that the disease was congenital; that when the case was first seen by myself the head was very large, being but little smaller, though but three months old, than that of an adult, being 20 inches in circumference, and $12\frac{1}{2}$ inches from tip to tip of ear; while the size of a healthy child of the same age is about $16\frac{1}{2}$ inches around, and $8\frac{3}{4}$ over; the adult head being about $22\frac{1}{2}$ inches around, and $12\frac{1}{2}$ over. The size of the head went on gradually increasing until the seventh month, when it was 26 inches around, and 17 in. over, increasing in size six inches in circumference, and nearly five inches from ear to ear in the course of four months. Contrast this with the size of an infant's head of the same age, $17\frac{1}{2}$ inches in circumference, and $9\frac{5}{8}$ inches over the top. For about one month it remained stationary; but then began to increase slowly, so that during its last four months it only increased one inch in each direction. At the time of its death, it being then 11 months old, its head measured 27 inches in circumference, and 18 inches over the top; the head of a healthy infant of 11 months measures 18 to $18\frac{1}{2}$ inches around, and $9\frac{3}{4}$ to 10 inches over the crown. It had cut no teeth.

SUCCESSFUL TERMINATION OF PURPURA HEMORRHAGICA.

By FREDERICK BEDFORD, M.D.,

LATE HOUSE SURGEON TO BELLEVUE HOSPITAL.

I was called to see, on March 7, John K.—, æt. 27 years, who had been attacked suddenly with an epistaxis four days previously. From the commencement of the patient's illness until my first visit he was attended by a physician, who succeeded, after a good many efforts, in checking the hemorrhage by the injection of tinct. ferri mur. into the nostrils, plugging the anterior nares. A day or two after hæmaturia and bleeding from the bowels were prominent symptoms, the patient having five or six passages of clotted blood in the course of the day. About the same time hemorrhagic spots characteristic of purpura were visible on the face, chest, and arms. I found him with a pulse of 140, feeble, intermittent, dry tongue and coated. The following mixture was then prescribed:—*R.* Spts. terebinth., acid sulph. dilut., aa f3ij; mucil. acaciæ f3ij. M. Also equal parts of brandy and water in small quantity. Patient became very much annoyed with spitting blood, which came from the posterior nares, and in order to remedy this he was ordered to eat plentifully of pounded ice. Inasmuch also as his respiration was oppressed by the formation of a coagulum in the fauces, the mass was removed shortly afterwards by a long polypus forceps, affording him immediate relief. The following day the pulse increased to 159, and was very feeble; bleeding from the bowels and kidney continued, and tannic acid in small doses was accordingly ordered in addition to the other means of medication. *March 9th.*—The turpentine produced strangury, which was relieved by powders composed of pulv. doveri hyoscam. and camphor gr. i. each. *March 10th.*—Patient was very feeble, pulse 155. There was great difficulty in breathing, from excessive dryness of throat, caused by the anterior nares being completely plugged with a coagulum. He was unable to swallow unless having previously moistened the lips and mouth with cold water; discharge from bowels somewhat diminished; hæmaturia continuing, strangury relieved; no change in treatment. *March 11th.*—Patient became somewhat delirious; complained principally of the parched condition of his tongue and throat, so that I thought it advisable to remove the plug from his nostrils. This I succeeded in accomplishing, not however without some difficulty, affording him great comfort. Pulse 155, and intermittent. Quinine and a more generous diet was directed; when the blood in the stools and urine gradually became less in quantity until the 16th, when it disappeared altogether, the pulse decreasing to 108 per minute, and acquiring more force. From this the patient became rapidly convalescent.

CASE OF UNUNITED FRACTURE OF THE OS HUMERI, OF FOUR YEARS' STANDING.

CURE BY THE USE OF SILVER LIGATURES.

By E. S. COOPER, A.M., M.D.,

PROFESSOR OF ANATOMY AND SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC.

P. M., æt. 39, was admitted into the Pacific Clinical Infirmary, July, 1856, in consequence of an ununited fracture of the centre of the os humeri, of four years' standing. The limb was very little swollen at the point of fracture, and not at all painful, even when moved actively, though the arm would bend very considerably. An incision was made four inches long on the outer side of the arm directly down to the bone. After this a sharp bone chisel was taken, and the soft parts removed with it from the ends of the fragments for the space of an inch and a half. The adventitious formation was then removed from between the ends of the bones with the same instrument, when the lower

end of the os humeri could be readily bent at right angles with the upper. In this position the ends of the broken bone were readily drilled by using an instrument that made a hole one line in diameter. A silver wire, a little smaller than the drill, was then passed through each fragment, when the parts were brought back in close apposition, and the ends of the wire twisted together so as to form a firm knot. A piece of lint wet in an evaporating lotion composed of one part of alcohol and ten of water was applied in the wound, by which it was made to heal entirely by granulation. A roller was then applied upon the limb as tightly as the patient could conveniently bear, commencing at the fingers and extending to near the axilla. The object of having the lint and roller thus applied was to prevent the burrowing of purulent matter among the surrounding parts and leave an opening to the bone, remaining for some time so, that if any portion should exfoliate, room would be left for its escape. The importance of this practice, I cannot too strongly impress upon the minds of my readers; so much so that I do not believe success to any considerable extent can attend any other method of operating for ununited fracture. By this method the parts become consolidated in the region of the wound, interrupting not only the admission of purulent matter from the secreting granular surface into the surrounding parts, but preventing the development of abscesses in the neighborhood, which so often cause this operation to fail. The dressing was completed by applying splints to the arm, flexing the forearm, and putting it into a sling across the breast. The cold lotion was continued and the same roller retained for ten days, when it was removed, the lint taken from the wound, and fresh dressings applied instead, which were changed again every third day; and this course continued without change throughout the after treatment.

A gentle motion of the wire was instituted by moving the ends back and forth, commencing during the third week. The object of this was to render the removal of the wire easy. At the end of six weeks the ends of the wire were untwisted; one end cut off by the bone forceps near the bone, and the other gently drawn upon until it came away. Tr. of iodine was applied at this time, and the roller continued two weeks longer when the cure was complete, the fractured bone being united firmly.

The patient then went to work, and has since been constantly laboring at his trade (house-carpenter) as formerly, being entirely well at this writing.

PROFESSOR MEIGS.—It is stated that this distinguished physician is about to retire to his country residence, bearing the romantic Indian name of Hamanassett, about twenty miles southwest of Philadelphia, in the pursuits of literature and agriculture, and upon the composition of a work which he has long meditated upon the history of medicine.

DOMESTIC ITEMS.—Dr. N. R. Mosely, of Philadelphia, has been elected an honorary member of the Ophthalmic Society of Paris. Dr. G. S. Walker has been expelled from the St. Louis Medical Society, on account of his becoming a homeopath. The *Georgia Medical and Surgical Encyclopedia* has ceased to exist. Dr. A. B. Benedict has been elected Professor of Anatomy and Physiology, and of Materia Medica and Therapeutics, in the proposed Dental College of New Orleans. The next annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, which was to have been held on the 11th of June next, has been postponed for one year. One of the lectures of Dr. T. G. Thomas has received the honor of a translation into German, and a separate publication in a pamphlet form.

The Commencement Medical Department of the University of the Pacific was held on the evening of the 14th of April. The degree of Doctor of Medicine was conferred upon six candidates. Addresses were delivered by Dr. R. Beverly Cole and Rev. T. Starr King.

Reports of Hospitals.

LONG ISLAND COLLEGE HOSPITAL.

SURGICAL CASES.

SERVICE OF JOHN G. JOHNSON, M.D.

Removal of nearly one half of the Maxilla Inferior for Necrosis.—Complete Bony Restitution and Restoration of the Functions of the Jaw.—About the middle of September, 1859, Lizzie Reardon, aged 5 years, residing at 109 Hamilton Avenue, was admitted with the following history: Three months previously, her mother had taken her to a dentist, who, according to all accounts, in removing a tooth, fractured the jaw. Swelling of the face on the injured side ensued; the other teeth loosened and fell out. Abscesses formed along the bone, both within the mouth and on the cheek, and were lanced. At the time she was presented to the hospital, a necrosed portion of bone was projecting through a sinus of the chin. Two front incisors were the only remaining teeth on the affected side. The face was greatly swollen. A fistulous opening at the angle of the jaw communicated with necrosed bone, and two others on the ramus; several also on the inside of the mouth communicated with dead bone.

The case was examined by the surgeons in attendance, who advised the removal of the carious bone; slight traction with the forceps applied to the projecting point of bone was sufficient to separate the coronoid process from its articulation, when it was found that the whole bone of that side was necrosed. The sinus at the chin was enlarged. The handle of a scalpel being crowded along the body of the bone, the periosteum was separated from all its attachments. Traction was again made upon the projecting point of the bone, and the condyle was brought down to the fistulous opening inside of the mouth. This sinus was enlarged, and the whole of that side of the jaw was drawn out through the mouth with very little more difficulty than would be experienced in removing a molar tooth—the only incisions having been that on the chin of about half an inch, and the one on the inside of the mouth an inch in length. The portion of the bone removed was the entire left half of the jaw, excepting the portion in which the two front incisors were. Simple water dressings were applied, and tonics administered. The swelling rapidly subsided, and as the face became smaller the jaw was drawn towards the diseased side, there being nothing on that side to resist the action of the muscles. She was brought to the hospital for about six weeks, during which time the reproduction of bone advanced with rapidity. About one year subsequently she again came under observation for some slight complaint. The restitution of bone was complete. The articulation was perfect, and with the exception of the loss of the teeth, she could use the jaw as well as if it had never been diseased. There is no undue sensitiveness about the jaw, and a dentist can easily fit a plaster to the new formed bone with a complete set of teeth for that side. She is in other respects a perfect picture of health. A case similar to this is published by Prof. E. S. Cooper, of San Francisco, in the *Medical Times* for February 23, 1861. In his case, a girl of seven, necrosis followed pytalism, and he removed nearly the whole of the left half of the inferior maxilla in the same manner. These cases are of interest from the slight causes which will produce the necrosis of so large a portion of bone in the young subject, and the facility with which new bone is formed.

Rupture of the Tendon of the Rectus Femoris Muscle above the Patella.—Recovery, with partial Ankylosis of the Knee, without the Patient's Losing a Day's Work.—On the 28th of March, 1861, Wm. McGovern, a powerful laborer, 46 years of age, weighing two hundred and ten pounds, applied at the Long Island College Hospital for

relief for stiffness of the left knee. He was quite an intelligent man, and gave the following history of the manner in which the injury was received. During the past year he had been at work on a farm, and on the 3d of December, 1860, he attempted to descend from the hay-mow, by walking down an inclined plane formed by a board, when he fell a distance of about eight feet, with his full weight upon the left foot, which was bent under him. Upon attempting to rise, to use his own language, "the leg crippled up," and he fell. The limb was forcibly extended by a fellow workman, and the patient again attempting to rise, fell down a second time. It was then extended twice in succession, after which, he says, he continued to work. The knee was enormously swollen, still he was able to keep about upon it, feeding the cows; but he could not milk, as he was unable to sit down to it. On presentation at the hospital, he could walk on a level surface with scarcely any appreciable halt. He could not, however, go up or down stairs as usual, but was obliged to walk with the left knee stiff, putting the right foot upon the step, and then drawing the left after it. He had had no medical attendance from the time he received the injury. On examination of the seat of injury, the ligamentum patellæ and patella itself were perfect. It was lower than normal, and firmly held in place by adhesions, so that scarcely any lateral motion could be effected. About the patella, at the point where the rectus tendon is attached to the patella, there was a depression marked, so that the point of the finger could be carried under the upper edge of the "knee-pan" in the same manner as it can under the acromion in a dislocation into the axilla. This depression continued up the femur seventeen lines, when the tendon of the rectus muscle could be felt. The skin was corrugated when the limb was partially flexed; upon the patient attempting to extend the limb, the skin would be drawn up by the contraction of the rectus muscle, which had formed new attachments at this point. There was a partial ankylosis, as is often seen after fracture of the patellæ, so that the limb could with great difficulty be semiflexed. Upon flexing the knee as far as possible, a marked deformity was noticed; the patellæ remained at the head of the tibia, the depression above the patellæ was more marked, and the condyles of the femur were brought into marked prominence, while over either condyle a small tendinous band could be felt, showing evidently that some of the fibres of the vastus externus and internus had not been ruptured, and had received this additional development from the unusual demand upon them.

This is a unique case, not only from the patient's continuing to use the limb after the occurrence of the injury, but from the firm adhesions which have taken place, notwithstanding this continued daily use of the limb.

Prof. Velpeau's remarks upon fracture of the patella may be of interest in connexion with this case. He says:—"Since 1832 I have dispensed, in patients affected with this fracture, with all annoying dressings. To prevent the consecutive stiffness of the articulation I permit them to get up and walk about at the end of twenty or thirty days, and even sooner, if the separation is inconsiderable. In proceeding in this manner, I have seen fractures of the patella recover more perfectly, and with infinitely less trouble than by the long protracted employment of the most injurious dressings." In the two cases of rupture of the tendon of the rectus femoris quoted by Prof. Velpeau, the one who commenced walking on the fifteenth day had much better use of his limb than the one who kept still for a longer time. This may develop an interesting point, whether it is advisable to confine a patient for so long a time as is taught for fracture of the patella—some three months. Is not the danger of ankylosis greater than the benefit to be derived from long union of the patella? and is not fibrous union of the bone to be preferred as giving greater freedom of action and less liability of re-rupture?

American Medical Times.

SATURDAY, MAY 25, 1861.

MILITARY HYGIENE.

If any one class of citizens more than another may properly take a deeper and more practical interest in the events of the present war, and in the condition of the soldiers who are called to engage in it, physicians constitute that class. Not only is it true that "a great war is a great epoch in the onward march of surgical science, when the slowly elaborated teachings of civil life are tested on the grand scale," but a great war furnishes grand occasions, and a vast field for the exercise of "the humanities of medicine."

Since the call to arms, five weeks ago, vast bodies of troops have been raised, and moved forward to the seat of operations, with a rapidity never before equalled. The seat of Government being the grand rendezvous, as it was and still continues to be the most important point for defence, the accumulation of troops at this place has gone on until there is now gathered in and about this "city of distances," a larger body of soldiers under arms than ever before gathered at a single point upon the western continent.

The sudden gathering of more than thirty thousand men in the neighborhood of Washington, where, without due preparation for provisioning and sheltering, these uninured soldiers have taken their first lesson in camp life, furnishes a peculiar opportunity for the study of some most important questions in Hygiene. Though the troops have thus far continued in tolerably good health, the germs of grave maladies already exist among them, and would excite serious apprehensions, did we not know that the chief authorities are keenly alive to the importance of preserving the health and *morale* of the soldiers. With peculiar satisfaction we make this statement to our readers. Never have we met with any class of philanthropists who appeared to have a keener appreciation of the sanctity of human life, and of the sacred obligations to preserve the health of their fellow men. The elevated and intelligent views taken of this matter as a question of State policy as well as humanity, by President LINCOLN and his Cabinet, and particularly by GENERAL SCOTT, Adjutant General THOMAS, and Acting Surgeon-General WOOD, will lead to the adoption of such measures as will insure very desirable improvements in the hygiene of the army. These distinguished men all unite in saying that the noble army now gathering represents the homes of the people, and its health is too precious to be needlessly jeopardized. They also seem to desire wisely to utilize and guide into legitimate channels the elements of civil or voluntary aid which are so profusely offered by the people of every class and profession. Of this, and concerning the hygienic condition and prospects of the army, we will write at another time. We will here repeat a remark made by Brigadier-General MANSFIELD. Speaking of the instances of neglected hygiene in different regiments, that distinguished officer remarked, that the greater part of the evils seen in particular regiments were simply the results

of ignorance of, or inattention to, the established army regulations relating to the discipline, police, and health of the troops and their quarters. "I have no trouble on that score with the Seventh New York Regiment," said the General; "they obey orders, and attend strictly to the police of their camps. Their wheelbarrows, etc., are seen moving under the direction of their regimental police early every morning, and everything is kept in order. In short," said he, "the New York, and most of the New England regiments, obey the Regulations and know how to take care of themselves." The New York regiments are, with a few individual exceptions, in good health; but some of them have severely tested their powers of endurance. For example, the Eighth Regiment, Colonel LYONS, has been nearly four weeks on duty, and has seen much hard service—marching, &c. The men have often been compelled to camp on the ground without tents, much of the time have had their food imperfectly cooked, and during the entire period, up to Sunday last, had only had fresh meat during five days. Yet we found this splendid body of men in good health on Saturday, when they went down from Baltimore, at which city their discipline and exemplary conduct made them exceedingly popular. And although, on that day, owing to some miscalculation in the commissariat department, the men at nine P.M. had partaken of no food since early morning, we heard no murmurings nor complainings. This is one of many instances we have witnessed of the soldierly qualities of our New York volunteers.

Among the evidences of increasing and specific attention to the health and comfort of the troops, as well as their effectiveness, we would call attention to the following orders which were promulgated on Friday last.

HEADQUARTERS, DEPARTMENT OF WASHINGTON,
WASHINGTON, D. C., May 17, 1861.

GENERAL ORDERS, No. 24.

With a view to carry out more effectually the third paragraph of General Orders No. 10, and to insure a thorough system of police for the preservation of the health of the troops and citizens, the commanders of regiments, independent battalions, and companies, will detail daily a Police Officer and police party under his orders for their respective commands.

The Police Officer, accompanied by the Surgeon of the station, will inspect daily the sinks, the kitchens, the mode of preparing food, etc., and correct all irregularities, and enforce a rigid system of police within the limits of their respective commands.

By Command of BRIGADIER-GENERAL MANSFIELD.
THEO. TALBOT, Assistant Adjutant General.

HEADQUARTERS, DEPARTMENT OF WASHINGTON,
WASHINGTON D.C., May 17, 1861.

GENERAL ORDERS, No. 25.

It being represented that under the fervor of the moment many patriotic persons have enrolled themselves in the volunteer regiments, independent battalions, and companies, who are physically incompetent, by reason of disease, malformation, and other infirmities, as well as by nonage, to perform the rough duties of soldiers, the commanders of all such corps will carefully, assisted by the medical officers of the same, *re-inspect* their men, and report for orders to discharge every individual of unsound health, or found too feeble for the service.

By Command of BRIGADIER-GENERAL MANSFIELD.
THEO. TALBOT, Assistant Adjutant General.

GENERAL SCOTT expressed his high opinion of the practical importance of the last order, as given above, in a most emphatic manner. A soldier incapable of severe duty and long marches, soon becomes a positive burden upon a

moving column of troops, and at the same time criminally perils his own life. Boys and feeble men only serve to fill up the hospitals, or line the wayside of the marching troops with graves.

SURGICAL INGENUITY.

To render efficient service in the battle-field the surgeon must possess that amount of self-reliance which will enable him to act to advantage in every emergency. When small bodies of troops are moving with rapidity as scouts, escorts, or upon duty necessarily limiting the supply of instruments and other conveniences, not unfrequently an attack may be made, and a considerable number of men wounded. With all these disadvantages, the surgeon who acts promptly and efficiently, not only contributes greatly to the comfort of those under his charge, but in many instances is instrumental in saving life which otherwise would have been sacrificed. It not unfrequently happens under such circumstances, that the carriage of "stretchers" for the wounded has been overlooked, and it becomes necessary for the medical officer to have their places supplied by some apparatus which may be constructed on the spot. We know of no contrivance which equals in simplicity and efficiency that which has been so frequently resorted to by the surgeons on the frontier. Two poles about ten feet long, and of sufficient strength (such as can readily be procured in any ordinary woods), may be placed on the ground, one along each side of a blanket. Then roll the poles towards each other, at the same time rolling up the blanket upon them, secure the blanket to the poles, when they have been wound up in it sufficiently near each other to give the litter, thus made, a proper width. The sides of the blanket having been in this way wrapped around the poles, can be fastened strongly even with common twine, by puncturing the woollen fabric at intervals of a foot, along the inner sides of the poles. Pass cords through, and tie tightly, so that the knots are on the outside of the poles.

In cases of secondary hemorrhage or of violent bleeding from a wound, when the circumstances of the case call for the ligation of a large artery at some point remote from the injury—for example, where it is thought best to tie the femoral artery at the point of selection below Poupart's ligament, rather than search for the bleeding point nearer the knee—it sometimes happens that no aneurism needle is at hand. A sufficiently good instrument for the purpose can be made by taking a common "darning needle" or "sail-maker's needle," and after heating its "eyed" end, bend it to a proper shape. By driving the pointed end into a small piece of soft wood or a corn-cob, a very good handle is made.

A surgeon, ordered in a hurry with a party of men for a duty which forbids the carrying of anything weighty or cumbersome, should select a few medicines of great power, such, for example, as brandy, morphine, and chloroform. If the duty is to be extended over several days, a few other articles put up in the form of pills and powders, are, for convenience in dispensing and carriage invaluable. Fifty opium pills of one grain each, fifty more containing in addition two grains of camphor each, are often extremely useful. Purgatives are best carried in the form of pills; quinine in powder. A small medicine case, the smaller the better, should always contain a moderate quantity of elixir vitriol, for dissolving the quinine. When thus used a little

quinine goes a great way, and is vastly more efficacious. The acid should be added to the quinine about one minute before the water for the solution.

As for instruments, it is astonishing how much can be done with a pocket case, a tourniquet, and a pocket knife. If without a pocket case, a bent needle will answer for a tenaculum, a twisted rope for a tourniquet. Still it is best to go provided. A man who can carry a watch can carry a pocket case. In troublesome hemorrhage, when the cut end of the vessel is either difficult to find or the ligature cannot be made to "stick," the bleeding will often be checked effectually by dipping a needle into the flesh near the leaking point, and transfixing rather deeply, include the parts somewhat *en masse* in the thread, then tie. An amputating knife of ordinary construction is an exceedingly useful, nay indispensable, instrument to have at hand, but is equally awkward to carry in a limited parcel; any inconvenience of this sort is effectually overcome by having the blade inclosed in the handle, and allowing it to shut up like a dirk-knife. Such an instrument could be carried in the pocket.

A few words now upon general army medical matters. The army medicine chests, and operating cases, such as are provided by Surgeon Satterlee in New York, are excellent, and it would be difficult to improve them. They should serve as a model for every regimental outfit, in regard to compactness and utility. The same remark applies also to the *pannier* medicine chests. Bottles of chloroform and ether are apt to burst in warm weather during transportation; the loss thus occasioned can, however, be easily overcome by extra supplies of these articles. Ruptures are not of infrequent occurrence among mounted men, and also in those on severe "fatigue duty." Trusses of various sizes ought to be always in the surgeon's outfit.

THE WEEK.

COMPLAINTS are now being heard from various volunteer regiments concerning the quantity and quality of food which is provided for them. The soldier does not expect luxurious fare, but he certainly has a right to claim an amount of plain and palatable food sufficient to sustain him in the arduous duties incident to camp life. We are happy to state that this deficiency of supplies is not owing to the want of proper appropriations from the various State authorities, but is doubtless caused by the commissaries, who lack the necessary administrative qualifications. It is needless to allude to the amount of danger to the health of the troops which will be the consequence of such neglect; we have already had occasion to notice the fact in connexion with the frightful prevalence of scurvy in the regular army.

GREAT satisfaction is expressed at Washington with Surgeon-General VANDERPOEL's Order for the vaccination of all volunteers in New York at the time of their enrolment. Small-pox made its appearance in several of the regiments in a somewhat threatening way more than two weeks ago. Several cases occurred while the troops were *in transitu* through New Jersey. The disease is now under proper surveillance, and the troops are being revaccinated.

INTELLIGENCE of the death of Dr. LAWSON, has been received at the Surgeon-General's office. Dr. L. died suddenly of

apoplexy, at Norfolk, where he was remaining for the benefit of his health. He was about seventy-five years of age. In a long and faithful service, he had justly earned the reputation of a successful surgeon and true soldier, and for more than twenty years he had held the position of Surgeon-General of the Army. Dr. FINLEY, Dr. SATTERLEE, and Acting Surgeon-General, Dr. R. C. WOOD, are candidates by right for the important office thus vacated by death. The former will doubtless have the preference.

At a late meeting of the Advisory Committee of the Medical and Surgical Boards of the City Hospitals, the following resolution was adopted:—

Resolved, That the Physicians and Surgeons of the New York, Bellevue, and St. Vincent's Hospitals be requested to organize classes of medical graduates and undergraduates, who have studied two years and attended one full course of lectures, for the preparation and registry of corps of Medical and Surgical Assistants in the Army.

We understand that a register has been opened at the office of Dr. Valentine Mott, No. 1 Gramercy Park, for this purpose. We take this opportunity of urging all the younger members of the profession and the advanced students, to seize upon the offer thus made to them, as one which promises very superior advantages for the acquirement of skill in minor surgery. In case of an engagement, such assistants to the recognised regimental surgeons will be much needed.

PROF. FRANK H. HAMILTON having concluded to embody the substance of his lectures on Military Surgery in his forthcoming book on that subject, we shall be unable to furnish them as we proposed. In consideration, however, of this unexpected change, the publishers will be prepared to supply the work at a reduced rate to those who subscribed for the *TIMES* on account of the Lectures.

Obituary.

BIOGRAPHY OF A SURGEON OF THE WAR OF 1812.

AMASA TROWBRIDGE, M.D.

IN another part of this number will be found an interesting communication on military surgery, being part of a lecture delivered by the late Dr. Trowbridge, one of the surgeons of the war of 1812, and long a prominent surgeon of Central New York. Since his death, which occurred somewhat more than a year ago, we have endeavored to obtain the materials for a biographical sketch, and finally have been successful. Within a few days we have been favored with the following very complete history, and no apology will be required from us for laying it before our readers at length:—

Dr. Trowbridge was born in Pomfret, Windham county, Connecticut, May 17th, 1779. His parents were respectable farmers, and the son labored regularly on the farm with them until he was fourteen years old—obtaining his early education at the common schools of the country, in the intervals of active labor on the farm, in the winter seasons. After that period he availed himself of the superior advantages of some respectable academies in the vicinity, where he made those attainments in the various branches of English study which fitted him for the duties of a professional life. At the age of seventeen he commenced a course of study with Dr. Avery Downer, of

Preston City, New London county, who was an able practitioner, and who had served with reputation as a surgeon in the war of the revolution. At the age of twenty, he was admitted to practice, and received a diploma from the State Medical Society; after which he returned to his native town, and spent one year with Dr. Thomas Hubbard, who was somewhat distinguished as a surgeon, as well as a successful practitioner in medicine. He then removed to Lanesboro, Berkshire county, Massachusetts, and practised in company with a Dr. Jarvis, in a large field of professional experience. He was a young man, and almost an entire stranger to the community, and of course entered upon this field under some disadvantages, inasmuch as he had to contend with able competitors, who had their circle of friends and supporters already enlisted in their sympathies. And yet, notwithstanding the odds seemed against him, he was completely successful in gaining for himself high social standing, and a good reputation in his practice.

It was while thus acquiring a good professional and social standing in Lanesboro, that he formed the attachment which resulted in an agreeable matrimonial connexion. With his wife, he removed to Treuton, in Oneida county, N. Y., where he practised two years, in company with Dr. Luther Guiteau. There was a large field of usefulness opened to him in the country about Trenton, and he had opportunities in a wider sphere for the practice of surgery than he had enjoyed before, so that he began to take rank in that branch of his profession in which he particularly desired a good degree of eminence. Opportunities were offering themselves every few days for adding to his experience in new and difficult operations in various portions of a wide range of country, stretching off towards Lewis and Oswego counties, so that when he fell in with the tide of emigration that was flowing into this Black River country, his reputation had in a measure preceded him.

It was in 1809 that he came with his family, and made his permanent residence in Watertown, where he entered at once into a large and extensive medical and surgical practice, in company with Dr. Paul Hutchinson, who was also from Oneida county, and was a physician of talent and skill in his profession.

The Doctor was a republican of the old Jeffersonian school by education, and took part in the great political questions of the day—identifying himself by word and deed, so that he became conspicuous in the ranks of his party. He was an easy, agreeable writer, and was the author of a series of political essays, which were published by one Thomas Walker, in a republican paper printed in Utica, and then copied into the principal papers of that party, west of Albany. It was a time of great political strife between the republican partisans of the general government and the federal party of this country, and when the war measures, and the embargo and non-intercourse acts of the dominant party were violently assailed and held up to ridicule as unnecessary, unwise, and impolitic, by the opposition. The object of this series of essays being to sustain the administration by argument based upon a full and faithful history of the grievances which had so multiplied in our relations with Great Britain, were read with pleasure by the friends of the administration, and served to identify the author strongly with that party.

It will be remembered that the final declaration of war occurred in June of 1812, and that the act passed both Houses of Congress on the 18th of that month. Five days afterwards, Gov. Tompkins, of this State, wrote to Gen. Brown, who was at that time a Brigadier-General in the militia, and residing in Brownville, empowering him to arm and equip the militia of Jefferson, Lewis, and St. Lawrence counties, for the defence of this northern frontier. On the 3d day of July, Gen. Brown wrote to the Governor as follows:

"As I am collecting considerable force on the river St. Lawrence, where an enemy may soon be met, I have taken

the liberty to employ a surgeon, on whom reliance can be placed. Doctor Amasa Trowbridge is the man. He is very respectable as a surgeon, and I pray your Excellency to approve of my choice and forward the tools he wants.

"Yours respectfully, &c.,

"JACOB BROWN.

"His Excellency D. D. Tompkins."

A few days afterwards, the Governor forwarded the proper documents to the Doctor, and ordered him to report himself for service to Gen. Brown, whose headquarters were at Brownville. Gen. Brown instructed him to organize and arrange suitable hospital quarters, with the necessary fixtures, at Sacket's Harbor, Cape Vincent, and Ogdensburg, all of which places were being occupied by forces under his command. This was a period of no small moment in the Doctor's life—opening up a wider scope for the practice of surgery than could be available in ordinary practice, and affording him opportunities for reaching a position at the head of his profession in a comparatively short space of time. From henceforth, until the close of the war of 1812, he was so identified with the movements of our forces on the frontier, that his history involves the history of the war itself, so far as the northern division of the American army was concerned. In truth, it would be impossible to portray this chapter in the history of so prominent a surgeon in our armies, without giving the marches and counter-marches, the battles, sieges, sorties, and skirmishes of our forces, or some part of them, and without connecting the surgeon and his aides with their simultaneous duties to the wounded and dying, with the varied fortunes of the army, to which they bore a relation at once so useful and indispensable. He had his quarters principally in Sacket's Harbor during the winter of 1812-13, and had a very busy winter in treating a large number of cases, of soldiers and citizens, who were sick with the "epidemic" which prevailed throughout the country. He was associated at this time with surgeons Buchanan and Caton, of the navy, and Professor J. Watts, M.D., of McComb's regiment of artillery, in the army.

In April of this year, 1813, the expedition against Little York (Toronto) was fitted out, and the Doctor was solicited by Gen. Pike and Commodore Chauncey to accompany it. By the advice and approbation of Gen. Brown, he accepted the invitation, and was ordered on board the brig *Oneida*, Capt. Melancthon T. Woolsey. The expedition set sail from Sacket's Harbor the 25th day of April, with 1,700 troops, commanded by Gen. Z. Pike, and they arrived at Toronto on the 27th. Two large batteaux, with riflemen from the brig, made a landing, and the boats soon returned with men who were already wounded. The Doctor had now business enough, and he remained on board the brig until the troops were all landed. Two midshipmen and about twenty seamen were killed and wounded at this landing of the troops, and brought back by the boats. The explosion of the enemy's magazine, which took place soon after, killed 38 and wounded 222 of the Americans. Among the killed was the gallant Gen. Pike. The enemy's loss in killed and wounded was 210, and they were attended principally by the American surgeons. Doctor Trowbridge attended principally to the care and treatment of the wounded citizens and soldiers of the enemy, many of whom were wounded by the explosion which was so disastrous to our forces. He was constantly engaged in these duties until the re-embarkation, which took place at the end of four days. A violent gale of three days prevented the sailing of the fleet, during which time the motions of the vessels produced great distress among the wounded, so that the experience of a single week of this active service was well calculated to give him correct notions of the horrors of war. From Little York the fleet proceeded to Fort Niagara, where the wounded were landed and provided with hospital treatment, and then the Doctor returned with the fleet to Sacket's Harbor, and resumed his duties at that place. It was not long, however, before it became evident that the scenes of mortal strife were to be shifted on to our

own shores, and that the enemy designed to make some demonstrations upon Sacket's Harbor, where most of the government stores were collected, and where we had some unfinished vessels on the stocks, together with a prize schooner, the *Gloucester*, which had been captured at Little York.

It was on the 29th of May, 1813, that Sir George Prevost, with 1,200 men, arrived with the fleet of war vessels, under the command of Sir James Yeo, at sunrise in the morning, and commenced landing his troops on Horse Island. The result of this battle is matter of history, so far as the final repulse of the enemy was concerned, and we have only to treat, in this place, of the poor wounded officers and soldiers, both regulars and militia, who came under the professional care and treatment of Dr. Trowbridge and his associates, of whom there were about sixty-eight Americans provided for in the hospital, and fifteen others disposed of at private houses in the village, and also three officers and thirty-two soldiers of the enemy, who were left behind in the precipitate retreat which they made to their ships. Doctor Trowbridge was now in a position to make himself familiar with every variety of casualty that is incidental to the life of a soldier, and to acquire that experience which active service alone affords.

On the 28th of August he received an appointment as Surgeon of the United States army, and was ordered to report to Colonel Ripley, of the Twenty-first regiment of infantry. The surgeon and surgeon's mate of this regiment had resigned a few days before, leaving two hundred on the sick list, who were distributed among the well in tents. The doctor entered with zeal upon his new and enlarged sphere of duties, and pitched the first hospital tents which were used on this frontier—removing the sick to them, where, under the sanitary arrangements which were made for their comfort, they were, in due time, fitted to take their places again in the ranks.

When General Wilkinson's unfortunate expedition was fitted out, down the St. Lawrence, having as an end to be attained the capture of Montreal, the doctor attended it in his capacity as surgeon of Ripley's regiment, and continued with it until its arrival at French Mills. This regiment was selected and posted as the rear guard of the army the night before the battle of "Chrysler's Fields," and of course shared largely in the fighting and suffering which resulted. The enemy kept possession of the field, and some forty of our wounded fell into their hands, who had been collected together in a little ravine on the field of battle, after the retreat of our forces. There were five hundred and thirty-seven of the wounded who had been conveyed on board the boats, who were landed at the Sault on the American side, where they were made as comfortable as circumstances would allow, in barns, log cabins, &c., under the care of the surgeons. The next day, the army with the sick and wounded, passed the Sault and arrived at Cornwall. The weather was very cold, with snow and sleet, which made the situation of the invalids one of great suffering, in spite of the exertions of the medical staff. From this place the army proceeded directly to French Mills, then surrounded by a wilderness country, where the sick and wounded were destitute of every covering, excepting cloth tents, in a latitude of 45°, and without suitable provision or medicine. Under these untoward circumstances, the sickness and mortality which were witnessed in that little army was appalling, and taxed the sympathies and skill of the gentlemen who had care of the hospital department to the utmost. The doctor remained at the Mills with the army, constantly engaged in efforts to ameliorate the condition of the poor soldiers, until the 20th January, when he was ordered to Sacket's Harbor to prepare quarters for two hundred sick and wounded from that unfortunate little army.

On the 15th of March, part of the army under General Brown, left French Mills in sleighs, and were rendered more comfortable in quarters which were temporarily provided for them, in this village, and at the garrison in

Sackett's Harbor. Hospitals were prepared at both places, and one hundred and ninety cared for by the army surgeons. Thus passed the gloomy winter of 1813-14. The expedition down the river was every way unfortunate. It accomplished nothing for the country, and was only fruitful in suffering, and in wasting and in frittering away the energies of men, who, as the history of the succeeding campaign, under new and totally different auspices, will abundantly show, were capable of confronting the veteran soldiers of Wellington. Before the time for active operations in the campaign of 1814, General Brown had been raised to the rank of Major-General, and was assigned to the command of this division of the army, while Generals Scott, Ripley, and Porter had been promoted each to a Brigade, from their subordinate positions at the head of their several regiments.

On the 9th day of April, this division of the army was ordered to march to Buffalo—the doctor accompanying it—where they arrived in due time, and where there was instituted such a course of severe drill, lasting from four to eight hours per day, and where was witnessed such a vast accumulation of military and hospital stores, and such a concentration of military men, as satisfied every man in the army that severe active service was expected somewhere on the lines. But while thus occupied, the small-pox broke out in the army, and an intermittent fever attacked many of the men, which made the duties of the hospital service onerous and fatiguing. By general orders, these cases were specially assigned to Dr. Trowbridge and his mates Everett and Allen. They were treated successfully, and the small-pox was prevented from spreading, and the whole soon restored to health, so as to participate in the sanguinary campaign which was about being initiated.

The times were rife with expectation, and the staff of the army had seen enough of the tried courage and skill and spirit of the man who was at the head of this division of the army, and enough of the fighting capacity of the Generals of brigade, to believe that whatever might be the eventual issue of the campaign, there would be fighting and suffering enough to satisfy every son of Mars or disciple of Esculapius.

[To be continued.]

Progress of Medical Science.

Indian Hemp.—The *Archives of Medicine* No. vii. contains an article from the pen of Dr. J. Russell Reynolds of London, "On some of the Therapeutical Uses of Indian Hemp," in which the author claims for the drug a good share of confidence, when a proper case is selected, a pure drug employed, and a proper dose exhibited; and that the uncertainty of its action is due to the failure of one of these three conditions. He says, "Hemp is a soporific, anodyne, and anti-spasmodic; it relieves pain, and spasm, and conduces to sleep; in doing either of these it usually promotes diaphoresis and diuresis; whereas it does not leave behind it headache or vertigo; nor does it affect the appetite nor confine the bowels.

Its beneficial effects are illustrated, 1. In cases of mental or emotional disturbance.—A remarkably intelligent boy, æt. 8, complained for four or five months, of frequent headaches, troublesome dreams, uneasy sleep with sighing respiration, &c. The sixth of a grain, taken every evening, soon restored perfect tranquillity. A merchant, who had suffered from yellow fever, became "excessively depressed in spirits, haunted with the gloomiest apprehensions and suicidal thoughts," nights restless. Extr. cannab. Ind. gr. ss., o. n., soon insured him good nights and days. A gentleman, æt. 78, mental powers failing, had been threatened with paralysis, and became extremely restless at night. A dose of gr. $\frac{1}{2}$ to gr. $\frac{2}{3}$ would induce sleep within ten minutes. This was continued for many months with the same success, it never being necessary to increase the

dose. 2. For the relief of certain kinds of pain:—A young gentleman, who had suffered for several years from intense pain in the jaws, face, and head, was relieved by gr. $\frac{1}{4}$ can. Ind., forma pil., o. n. Tr. ferri sesquichlor. 3 ss., t. d. An intelligent boy, æt. 7, was first noticed to clench his left hand involuntarily, afterwards suffering from violent headaches, located in the forehead, occurring once a week, followed by partial paralysis of the left side. Was relieved by can. Ind. gr. $\frac{1}{4}$, bis die, with potass. iod. gr. iv., and dec. cinch. 3 j. A gentleman, æt. 59, suffered for twenty years from pain in right scapula, and corresponding portion of the spine; afterwards numbness and tingling down the arm similar to that produced by pressing on the nerve at the elbow. Extr. can. Ind. gr. $\frac{1}{4}$, t. d., forma pilulæ; sin. camph. c. opio, pro usu; syr. ferri iodidi, ℥xxx., t. d. "Within a fortnight the pain was completely removed; the tingling sensation, however, persisted." A clergyman, æt. 70, complained of pain in left side of neck and back, extending to the head, followed by difficulty in articulation. Tongue deviated to the left, head drawn towards left shoulder, arcus senilis marked, spirits depressed. The pain was relieved by can. Ind. gr. $\frac{1}{4}$ ter die. A young lady of highly nervous temperament was relieved of severe attacks of hemicrania, by gr. $\frac{1}{4}$ doses given thrice daily. 3. In certain forms of convulsions:—An officer in a cavalry regiment, æt. 28, had suffered from slight epileptic attacks, gradually increasing in severity, until they at length became frequent and tetaniform. Though not entirely cured, the severity of the fits was greatly relieved by gr. $\frac{1}{4}$ doses every three hours. A gentleman, æt. 45, of good general health, but subject to frequent excitement, was suddenly seized with a violent convulsion followed by heavy and stertorous sleep, and after by maniacal excitement for fifteen minutes, which passed into another fit, passing through a similar series of symptoms about once an hour. After failure of the ordinary methods of treatment, gr. i. of can. Ind. was given, and rejected by the stomach. Another dose given and retained, which afforded complete relief. By the same treatment, a case of obstinate vomiting, in a young lady, was entirely cured, and an epileptic youth was greatly relieved. On the other hand, it was absolutely useless in most cases of epilepsy, hypochondria, and the various hysterical affections. To give a bird's eye view of the whole subject, the remedy was for the relief of emotional disturbances.

SUCCESSFUL IN	UNSUCCESSFUL IN
1. Deranged cerebral circulation, with pain and delirium.	1. Hypochondriasis.
2. Incipient insanity after yellow fever.	2. Temporary, recurrent religious melancholy.
3. Senile ramollissement.	3. Insomnia with diabetes.

Painful Affections.

1. Nervous irritation from carious teeth.	1. Sciatica.
2. Probable tumor of brain.	2. Hysterical hip-joint.
3. Probable thickening of spinal meninges.	3. Hysterical headache.
4. Hemorrhage at roots of 8th and 9th nerves.	
5. Syphilitic meningitis.	
6. Hemicrania.	

Affections of Motility.

1. Meningitis.	1. Epilepsy.
2. Intense cerebral congestion.	
3. Obstinate nervous vomiting.	
4. Recurrent convulsions.	

It does not, like opium, purchase present relief at the expense of future misery. The value of the medicine seems enhanced, because the limitation of its action will enable us to apply it with scientific selection.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, April 17, 1861.

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

DISCUSSION ON MORBUS COXARIUS.

(Continued from page 311.)

DR. J. R. WOOD remarked, that morbus coxarius in his opinion was a constitutional disease occurring in strumous subjects, the same in character as Pott's disease of the spine, or the "white swelling" and "fungus articulari" of Sir Benj. Brodie. The first stage was inflammatory in its character; the second was attended with the effusion of serum, and afterwards of pus, in the joint; and in the third stage, the capsule was ulcerated, allowing the matter to be diffused in the neighborhood of the joint.

The rule was, that it first attacked the synovial membrane, from which it extended to the cartilage of incrustation, and then to the bone. This was its general course, but occasionally it would commence outside of the joint in the form of a cold abscess extending inwards by means of ulcerative absorption.

He then exhibited several specimens of the disease. The first was a specimen showing that the inflammatory trouble was not confined to the joint, but that the upper portion of the bone was very much hypertrophied, and eburnaceous to a point somewhat below the trochanter major. In that instance he excised the portion of bone, embracing the head, the cervix, the trochanters and upper extremity of the femur; the patient entirely recovered. Another specimen showed an instance in which the head of the bone was the only part diseased. In that connexion he referred to the fact, that the head of the femur was a part of the joint which was usually first attacked by this strumous form of inflammation and ulceration. He considered that the limitation of the disease was perhaps the secret of the favorable issue of the case.

Now, in the majority of cases, the disease will be found to involve only the upper portion of the head of the femur, and the upper portion of the cavity of the acetabulum, the result mainly of the attrition and pressure in locomotion.

Four other specimens were exhibited, two in which the head of the femur was very much flattened, and two where nothing remained of the cervix, the head being fused to the acetabulum. He next exhibited two specimens in which the disease had perforated the acetabulum; in one of these cases, which he saw with Dr. Tully, the abscess emptied itself into the rectum. He did not think that an operation was warranted in these cases.

In relation to dislocation in this disease as the result of ulcerative absorption, he stated that it was of very rare occurrence; that Dr. March, of Albany, had visited fifteen museums and failed to find more than three or four bona fide cases of that accident. I happen, said Dr. W., to be fortunate in having two cases. Here is one in which the upper portion of the acetabulum, the border or rim, has been absorbed. The upper portion of the femur, from attrition, has been destroyed to a certain extent, the capsular ligament is disintegrated, and the head of the bone thrown upon the dorsum of the ilium; and here, by attrition, it commenced to form a new acetabulum. This was the case of the young gentleman where the ulceration extended into the acetabulum, and where the abscess emptied into the rectum. I have also another specimen from my museum, where there is a dislocation of the femur into the ischiatic notch. The posterior border of the acetabulum has been absorbed, and the head of the bone is very much diseased. The limb in this case was extremely abducted. Here is a button-hole through the capsular ligament at its posterior aspect, and the head of the bone is thus let into the ischiatic notch. It pressed upon the great sciatic nerve,

and the suffering it occasioned was beyond all description. Dr. Parker saw this case with me, and the patient suffered more than any other one I ever saw before. Here is another specimen, the symptoms of which very much resembled those of morbus coxarius; a case where there is a deficiency of earthy matter entering into the composition of the bone, where the weight of the body flattens it down, when you get the local appearances without the constitutional symptoms. You see here that peculiar mushroom appearance quite marked—the head of the bone being flattened.

DR. RAPHAEL.—There is a marked difference in the different forms of morbus coxarius. Dr. Wood has stated that morbus coxarius always occurs in persons of a strumous diathesis. Now, I do not think that such is the case; in fact, I am very sure it is not, notwithstanding it is true that you have this disease springing up in children of this particular diathesis, the same as we have inflammation attacking any other structure. You may also have it in a less aggravated degree in those who are perfectly healthy, or apparently so. Now, I think a proper distinction should be made between these two forms, and that the treatment should be modified accordingly. In one case, where it occurs in a strumous subject, we must, in addition to any local treatment, whether we adopt the plan discussed at the last meeting or not, have recourse to constitutional treatment. When we have an apparently healthy subject attacked, then there is no need for such general treatment. I, myself, have been a subject of what is termed morbus coxarius. When I was thirteen or fourteen years of age, I had this disease, and it went on to an extent that might possibly be called the third stage, although the effusion which occurs in very many cases in the second stage was wanting in mine. I do not consider it a necessity to make three several stages in this disease. I do not think that I have been subject to struma; if so, I have entirely recovered from it, not having had an attack of sickness longer than six weeks in twenty-five years.

In your treatment you must be guided altogether by the constitutional derangement, no matter whether it occurs in persons of this diathesis, or in persons otherwise healthy. We may have the disease commencing in the synovial membrane or in the joint. Now, I know that Mr. Brodie speaks of this disease as strumous in its character, and as commencing in the synovial membrane, and I believe, as occurring also in the bone. Others speak of it as occurring in the ligaments, and some others erroneously speak of it as commencing in the cartilage. Now, as every surgeon knows, it is an exceedingly difficult matter to diagnose this disease in the first stage, and much more difficult is it to distinguish between inflammation of the bone and synovial membrane. I know that there are certain rules laid down in the text-books by which we can arrive at a diagnosis, and I am free to admit that possibly, in the majority of cases, we may find that the pain and other symptoms will enable us to arrive at a conclusion as to the commencement of the disease. I do not believe that the disease ever does commence in the ligament, but that it is merely an extension of the inflammation from the synovial membrane. Now, so far as stages are concerned, the disease does not invariably take a certain course. We may have it go on for some time without the patient complaining of the slightest pain or uneasiness of the hip whatever. The only symptom may be a little limping in the gait, or some uneasiness of the affected part at night. Again, this disease may go on for months without passing through what has been denominated the second stage. It may go on to what has been termed the third stage. You have then some displacement—whether it be from absorption of the head of the bone or not, it is a dislocation. True dislocation, however, I am aware is an exceedingly rare form. In regard to my own case, I do not doubt from the shortening that has taken place (about three-quarters of an inch), that there has been some change either in the head of the bone or the acetabulum, the upper rim of which has probably been

eroded. I was treated by the old plan of extension and counter-extension, and I have never met with as perfect a result in any other case. Every motion of my limb can be made without difficulty, except when I attempt, when seated, to bend my knee downward. I did not intend to have spoken as long as I have done; my object was to state that in this disease, which, to my mind, has never been fully investigated, struma is not always a necessary concomitant—that you may have it going on to complete destruction of the head of the bone, even so far as Dr. Wood has shown, without any constitutional trouble other than that set up by the local disease. When, however, the disease does occur in a strumous diathesis, it is much more difficult to treat successfully.

DR. WOOD.—I am not aware that any surgeon, either living or dead, has described any pathological changes of the hip-joint under the name of ulcerative absorption, fungus articulari, or morbus coxarius, that was not strumous in its character. I do recognise, and so does every intelligent surgeon, that there is such a thing as arthritic inflammation, attacking the hip-joint, and, in fact, all the joints. And here is where the intelligent surgeon is called upon to draw a line of distinction between the two forms of disease. You may have an acute articular inflammation of the joint, but it is very different from the true morbus coxarius, which is essentially strumous in its character.

DR. RAPHAEL.—Dr. Wood states that there is a great difference between healthy and strumous inflammation. I admit the difference; but I would like to know from Dr. W. if, when he finds a case of hip disease, presenting all the symptoms of morbus coxarius, occurring in a child apparently healthy, with no glandular enlargements or ulceration, he can point to any characteristic sign by which he could say that the patient was scrofulous. I know this word struma means a great deal, and it means nothing.

DR. BAUER being invited to give his views on the subject, stated that he had listened with a great deal of interest to the statements of Dr. Wood, and while he maintained that the gentleman's opinions were entitled to the greatest respect, he at the same time thought it rather dangerous to the proper understanding of the subject to take one man as an authority and question no further. Facts should be relied upon more than individuals. In reference to the constitutional character of the disease, he declared that he had seen more healthy children afflicted with morbus coxarius than he had those who were already suffering from scrofulous diseases. It was not only so with reference to the hip-joint, but to the knee and other articulations. He thought the term scrofula was a very convenient one to apply to such cases where there was a difficulty in making out the true cause of the trouble. Tinea capitis was considered a scrofulous disease until such time as a parasite was discovered to occasion it. Inspissated and curdy pus had very often been taken as evidence of tuberculosis, while the microscope revealed only pus corpuscles and fat granules. It had been the misfortune of Dr. B. never to meet with tubercular matter in bones, and certainly not in the head of the femur. He had exsected the latter nine times, and had besides carefully examined a large number of specimens pertaining to hip disease, yet all that had been found was a partial or general infiltration, and more or less softening of the cancellated structure, which, under the microscope, revealed nothing further than the products of inflammation and disintegration. Virchow is moreover of the opinion that the so-called tubercular matter is a mere phase in the breaking up of inflammatory material, and the reliability of his researches is as great as that of any pathologist living. *The existence of the so-called tubercular cell is totally denied by that author.* Dr. Bauer had but lately observed a circumscribed, softened spot within the external condyle of the left femur, to all appearance grey tubercular material, whilst it was found to be fat and disintegrated osseous structure. He maintained that no surgeon should make use of constitutional treatment unless there were symptoms of constitutional trouble pre-

sent. The loose definition often given to scrofula would be apt to convince the credulous that the whole human race was tainted. In his experience, the local treatment of morbus coxarius was attended by far the best results compared with the constitutional treatment, especially when the splint of Dr. Davis, and the improvement by Dr. Sayre, was brought into requisition. At the previous meeting of the Academy, some gentlemen had ascribed the modus operandi of Davis and Sayre's splint to the diminution of the pressure of the inflamed surfaces upon each other. This view Dr. Bauer considered highly erroneous. The experiments of Prof. Weber had clearly demonstrated that the hip-joint maintained its integrity by atmospheric pressure, and that great weight or power might be brought to bear upon it without effect. Luxations were caused indirectly by the sliding of one surface upon the other, like two pieces of glass moistened by water. It was not possible for the two articular surfaces to be directly separated by an extension so insignificant as that exercised by these hip splints. This opinion at once directed the attention upon another point, to wit, the reflex action caused and perpetuated by affections of joints in general, but more especially of those of the hip-joint. It alone could satisfactorily account for the permanent and usual deformity in the third stage, the waste of the extremity, the peripheral pain at the knee, the painful paroxysms at night, muscular tremor and contractions, and convulsions. The convulsions were rare in joint diseases, still they did occur, a case appertaining to which he had published *in extenso* in his lectures on contractions of the knee-joint. As yet too little attention had been paid to this subject. That the pertinacity of joint diseases in a great measure depended on reflex action, could be proved by a great number of cases successfully treated, wherein the relief of the reflex symptoms clearly indicated the source of success. Dr. Bauer having in various papers called the attention of the profession to this important point, he did not deem it advisable to reiterate his views on that occasion.

DR. WOOD remarked that every unhealthy inflammation indicated something wrong in the constitution, and that morbus coxarius was attended with an inflammation that was essentially unhealthy in character, as was proven by the illaudable pus, and the presence of tuberculous matter in the substance of the bones. The gentlemen, said he, cure this disease without medicine. I grant it, and with the apparatus of Davis and Sayre, I will cure the majority of my cases without medicine, except that which God gives to each of us—light, air, exercise, and good diet! You may take all your medicine and throw it to the dogs, but does this prove that morbus coxarius is not a strumous disease? What is the cause of strumous disease? You go into the factories and the workshops abroad, and you will find that they are in want of good air, good food, and exercise. Now in morbus coxarius, the disease is spent upon the head of the bone; while the patient is exercising, and while irritation is the result of that exercise, the disease will progress from bad to worse. I do not care what you call it, I shall call it scrofulous and strumous disease until I am furnished with better terms. As long as that expresses the pathological condition that exists in the joint, the term is good enough for me.

DR. SAYRE stated that all the hip-joints which he had exsected were carefully examined by some of the best microscopists in the city, and no tubercular deposit was discovered in any case. Besides this, he had seen several post-mortem examinations of the bodies of patients who had died of morbus coxarius, and in no instance, notwithstanding a careful examination had been made, were any of the organs in the body found to be the deposit of tubercle. He did not, however, deny the possibility of the existence of tubercle in other portions of the body when morbus coxarius existed, any more than when the patient at the same time suffered from a broken leg. He had often seen the broken-down material referred to by Dr. Wood converted into laudable pus by a free incision into the joint.

This fact he considered a strong argument against the disease being strumous in character. He was not disposed to believe that strumous disease could so entirely limit itself, as that evidences of its existence could be found in no other part of the body than the hip. Scrofula was a blood disease, a constitutional difficulty, and must of necessity affect more than one part of the body at the time. The disease, morbus coxarius, he was inclined to think, was first a local trouble; and by the retention of pus and the want of proper treatment, reacted upon the system in such a manner as to produce the most formidable constitutional symptoms. He had proved more than once the efficacy of relieving the local symptoms, and allowing the constitution to take care of itself by the use of plenty of fresh air, good diet, etc.

The hour being far advanced, Dr. Watson moved an adjournment, with the understanding that the subject of discussion should be continued at the next meeting.

Correspondence.

A NEW BULLET-EXTRACTOR.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—Having been for some time past manufacturing an instrument for the extraction of bullets, we have thought

that the present opportunity would be a good one to introduce its merits to the profession. The first great advantage which, in our opinion, it possesses is its simplicity. The form and construction of the instrument can easily be seen by a reference to the annexed wood-cut. The shanks, crossing each other, take up but very little room when the instrument is opened, and hence it can easily be manipulated when introduced through the wound, without causing any unnecessary pain. Again, the points are well tempered and curved inwards in such a way as that when they are brought together by the closure of the instrument a smooth blunt surface is presented, as innocent of harm as the ordinary probe point. After the instrument is introduced, by opening it, the curved points have another advantage in pushing aside from the bullet any blood-vessel or nerve which may present itself, insuring it against all injury from the points themselves. When once these points are fastened into any part of the ball they will not yield to the strongest resistance. Should the ball have taken a circuitous course and passed behind muscular tissue so that in



a bone, or imbedded itself in either case but a small portion of its surface is presented,

the points of the instrument can apply themselves and form a regular axis round which the bullet can turn itself out of its bed. The instrument is adapted to the extraction of large as well as small bullets, and is also of material service in the removal of portions of necrosed bone. It is to be hoped that these advantages may be sufficient to recommend the extractor to the profession at large, but more especially to that portion of it who are about to engage in active military service.

Yours, etc.,

GEO. TIEMANN & Co.

68 Chatham street, May 9, 1861.

Medical News.

MARRIAGES.

CLEBORNE—PARKER.—On Wednesday, May 8, by the Rev. Wm. Suddard, D.D., Christopher James Cleborne, M.D., Assistant-Surgeon United States Navy, to Jane Elizabeth Emma, eldest daughter of Jno. B. Parker, Esq., of N. Y.

ARMY AND NAVAL INTELLIGENCE.

MAINE.—*Second Regiment*, Maine Volunteers—Surgeon W. H. Allen; A. C. Hamblin, Assistant-Surgeon.

NEW YORK.—*Second Regiment*, Troy—Surgeon, Dr. R. B. Bontecou; Surgeon's Mate, Dr. Le Roy McLean. *Third Regiment*, Albany—Surgeon, Dr. Alexander H. Hogg; Surgeon's Mate, J. J. Van Rensselaer.

BROOKLYN.—*Steam Frigate Wabash*—Surgeon, Samuel Jackson; Assistant-Surgeon, James J. Mayee. *Steamer Mount Vernon*—Assistant-Surgeon, M. H. Henry.

KENTUCKY.—Dr. A. Callaway has been appointed by the President Surgeon of the Marine Hospital at Paducah.

THIRTY physicians and surgeons are required for immediate service in the regular army of our Government. The call is urgent and the service patriotic, yet there is reason to fear that the strong temptation which is offered for enrolment in the medical service of the Volunteer troops may prevent a sufficiently prompt response to the present call from the Surgeon-General at Washington. Patriotic young physicians, who would serve their country most effectually at this momentous crisis, should see to it that there be no lack of service in the Medical Department of the regular army. The more creditable basis and standing upon which surgeons of the regular staff are received, is a sufficient reason for preferring that to the volunteer regimental service. The "Army Medical Board" will continue in daily session at the Metropolitan Hotel until the full complement of thirty shall be filled. Why should not some of the accomplished medical gentlemen who joined volunteer regiments in the capacity of assistant-surgeons, embrace the present opportunity to reap the honors of the regular service? The following official notice furnishes the proper directions to candidates:

SURGEON-GENERAL'S OFFICE, MAY 16, 1861.

In consequence of the increase of the regular army, an "Army Medical Board" has been convened, and is now in session in New York city, for the examination of candidates for admission into the Medical Staff of the army.

Applicants must not be less than twenty-one or over thirty years of age.

Applications must be made to the Secretary of War, or through the Surgeon-General of the Army, stating the residence, place, and date of birth, accompanied by respectable testimonials of moral character.

At the last meeting of the New York Academy of Medicine, held May 15th, the Secretary, Dr. T. G. Thomas, was prevented from reading the minutes, in consequence of a disturbance arising from a charge made against him of entertaining traitorous sentiments towards the Federal Government.

Original Lectures.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM,

DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE.

BY

M. GONZALEZ ECHEVERRIA, M.D.,

OF PARIS,

LATE ASSISTANT PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND THE EPILEPTICS OF LONDON, CORRESPONDING MEMBER OF THE ANATOMICAL SOCIETY OF PARIS, FELLOW OF THE MEDICAL SOCIETY OF LONDON, ETC. ETC.

LECTURE IV.

ONE of the most interesting subjects in nervous diseases is that of *convulsions*, the morbid state in which harmony between the will and the reflex faculty is abolished or perverted, after increased incitability of the nervous centres. This state is permanent in *tonic convulsions*, or temporary and repeated in *clonic ones*. Although many affections are separately classed under each of these titles, you will, however, observe between them a great similarity, and that each species differs from the others only in a characteristic symptom; a peculiarity of importance in the etiology and treatment of convulsive diseases.

Brown-Séquard has pointed out in the nervous system a set of fibres, not employed by the will, *the division of which is not followed by paralysis, although they are able to produce muscular contractions even more powerful than those caused by nerve-fibres employed by the will in voluntary movements. An injury in the anterior pyramid, where motory nerve-fibres decussate, hardly produces a momentary contraction; while the same cause, acting upon the olivary columns of the medulla oblongata, which do not contain voluntary motor fibres, at once determines a spasm of many muscles, sometimes for hours, sometimes for days and weeks after the mechanical excitation. In the medulla oblongata or pons varolii those peculiar fibres are situated in the lateral and posterior columns, without decussating, and containing most of the vaso-motory nerves, by which, directly or through a reflex action, they act on other parts of the nervous system, and if excited produce spasm in the corresponding side of the body.*—(Brown-Séquard, *Physiol. of Central Nervous System*, p. 194.)

It would be impossible for me to expose the cause of convulsions, better than is done in the lines quoted above on the functions of the nervous system, from so great an authority; they at once make evident the important part which the sympathetic takes in such diseases. I mentioned, on a former occasion, that tetanic movements of extension in the muscles of the limbs accompanied spasm in bloodvessels after irritation of the ganglionic system. This influence of the sympathetic in exciting convulsions has been demonstrated by Kussmaul, who, after the ligature of one carotid artery and section of the sympathetic in a rabbit, saw galvanic irritation of the superior portion followed by convulsions, which terminated after cessation of the stimulus, and could be several times repeated. I will add a pathological case, supporting in the most irrevocable manner that irritation in vaso-motory nerves is the starting cause of convulsions. Pereira, in his *Elements of Materia Medica*, mentions an epileptic patient, observed by Holst, of Christiania, who during every fit had stoppage of the pulse in the left arm. On post-mortem examination it was found that the arm received its blood from the vertebral arteries, which were supplied through the basilar artery from the carotids, and that the want of blood in the brachial arteries was due to permanent spasm in the carotid and basilar.

It is after peripheral excitations that convulsions are produced, but they may also arise from central ones. The spinal cord and the medulla oblongata give rise to convulsions in cases of congestion, tumor, injuries, and moral excitations going through the brain to act upon the oblong medulla. Except those parts in the base of the encephalon

containing vaso-motory nerves, already pointed out, I may state, without absolutism, that no other parts in the brain, when irritated or injured, originate convulsions. Brown-Séquard has found that in one hundred and sixty cases of cerebral tumors attended with epilepsy, the dura-mater was always interested, and among as many other tumors in the brain with integrity in the dura-mater, there was no epilepsy whatever. Flourens and Marshall Hall have proved before, that irritation upon the dura-mater occasions convulsive contractions, and I can state from what I have seen, and from attentive examination of the numerous cases reported in the excellent work "On Inflammatory Diseases of the Brain," by Calmeil, that convulsive symptoms in diseases of the brain almost always co-exist with effusion of blood or pus in the arachnoides, with morbid productions in the same membrane, or with violent congestion in the medulla oblongata. In the beginning I said that want of harmony between the will and the reflex power occasions convulsions, therefore loss of blood in the arteries of the brain, suspending its functions, should be followed by convulsive fits, as has been demonstrated by Tenner and Kussmaul, after interesting researches made on animals. You are all aware that ligature of the carotid artery is usually attended with convulsions; and Oppolzer, of Vienna, reports a case of aneurism in the aorta, causing the migration of a thrombus in the carotid, accompanied with a severe attack of eclampsia, aphonia, and death. Several substances penetrating into the blood, possess the property of bringing on convulsions: such as belladonna, strychnia, hydrocyanic acid, carbonate of ammonia, etc. As to the latter, I shall hereafter remark the share it has in eclampsia puerperalis, and in convulsions from Bright's disease.

Though unfrequent, I may call your attention to rhythmical convulsions. Rhythmical contractions in the muscles of the face were discovered by Brown-Séquard and Martin Magron, after paralysis by section of the facial nerves. Such contractions exist likewise in the limbs after death from cholera, yellow fever, etc; but the rhythmical convulsions I allude to are observed independent of paralysis, and are located in certain muscles. In 1859 Jobert de Lamballe presented to the Academy of Paris a case of this kind in a girl fourteen years of age, affected from the age of six years, with rhythmical convulsions in the peroneal muscle of the right side. The girl's health was always good, and she never had any serious disease. A constant beating, regular with the pulse, though more frequent, existed behind the right external malleolus. The left muscle became subsequently affected, and in both, the effects of contractions were to produce pain, hesitation in walking, and even falling. Tenotomy was performed in both muscles by Jobert de Lamballe, and the rhythmical convulsions completely disappeared. I have myself observed a still stranger case. A young hysterical lady, chloro-anæmic, after invincible aversion to animal food, had rhythmical convulsions in the muscles of the larynx, producing constriction of the glottis and a constant noise, so sharp that it was perceptible at a distance. This was accompanied with frequency in the movements of the heart, beating of the carotids, and aphonia; whenever an effort was made to articulate a word, the noise ceased, as it did also during sleep. The least emotion made it more frequent and strong, and I cannot better compare it than to the *tic-tac* of the heart. This uncommon affection was considered due to an aneurism of the aorta, and unsuccessfully treated by several means. The lady, however, continued in the same condition, was married, completely recovered her voice, had three children, and has never again been troubled with the disease. Such cases, as observed by Schiff and Jobert de Lamballe, account for all the wonders of the celebrated Tremblers.

A last peculiarity of convulsive affections is, that congestion in the brain is scarcely if ever their cause—generally bringing on sudden paralysis, preceded by delirium and other symptoms of cerebral excitation. As to paralysis, you should ever remember that with convulsive diseases

it has not a permanent seat, whilst with diseases of the encephalon it constantly remains fixed. The first fact explains why bleeding, though so much praised, is in most cases inefficient against eclampsia and other convulsive diseases.

I now enter upon the history of chronic convulsions, beginning with that of eclampsia, comprehending *eclampsia parturientum* or *puerperalis*, and *eclampsia puerorum* or *epilepsia puerilis*, usually called *infantile convulsions*.

Puerperal eclampsia is not a frequent disease; it occurs in one of every four hundred and fifty pregnant women. This dreadful accident rarely happens at the commencement of pregnancy, but appears during labor, or in the last days of gestation. It has been advanced by many authors that sanguineous women are liable to it, but it is certain that eclampsia most frequently exists in primipare and during labor. Neither is the question quite settled as regards the origin of the disease in pregnant women. Scanzoni and Kiwisch believe it due to pressure of the uterus upon nerves in the pelvis, but you will find several authors insisting that albuminuria is, in most cases, the very cause of eclampsia. The facts brought forward in favor of this theory are much too interesting not to be exposed, and are likewise intimately connected with the history of nervous accidents attending Bright's disease.

Frerichs proved that uræa was not a poison—and that its want of stability, as also its identical composition with carbonate of ammonia, convinced him that in albuminuria convulsions were due to decomposition of condensed uræa into carbonate of ammonia by presence of an unknown ferment. In evidence of these opinions he showed uræa abounding in the blood, without convulsive accidents, in several cases of Bright's disease; and demonstrated by experiments upon animals that extirpation of both kidneys and injection of uræa in the blood only determine convulsions when carbonate of ammonia is disengaged. To these important facts new ones were added by Brown-Séquard and Cl. Bernard, who injected carbonate of ammonia into the blood of animals with similar results—as also by Lehmann, Carpenter, Rayer, Gibourt, Becquerel, Braun, and many others, who found uræa highly increased in the blood without nervous accidents. It would be difficult not to recognize the value of all these proofs; no doubt that albuminuria may be attended with effusion of serosity in the arachnoides accounting for convulsions, but instances are numerous indeed, where no cerebral lesion has been detected on post-mortem examination, and in which, therefore, we are obliged to admit poisoning as a cause of the disease. No less evident is it that the majority of pregnant women having albuminuria are attacked with eclampsia. Of one hundred and fifty-nine women with albuminuria observed by Imbert Goubeyre, ninety-four suffered with eclampsia. In the Maternité of Paris, there were seven out of forty-one; and of fifty-two cases of eclampsia observed by Braun, of Vienna, among twenty-four thousand labors, there were forty-four with albuminuria, and the rest presented a pre-existing nervous disease. Of course, rigidity of the neck of the womb and other obstacles to labor, as well as emotions, may determine eclampsia, but under such circumstances the accident is brought on by reflex action, and is more easily cured.

Albuminuria once admitted to be an ordinary cause of eclampsia, the question is, whence does it come in pregnant women? At the commencement of pregnancy the cause seems obscure to some authors. If we consider, however, the rarity of eclampsia during that period, and that secretions may be deranged by reflex actions started from a distant organ, we may conceive that the uterus should, under such circumstances, act upon renal secretion in the same way as upon the digestive functions. At the end of pregnancy albuminuria comes from stagnation of blood in the kidneys after their pressure, and that sustained by the iliac veins and the cava. Braun admits, together with this cause, the changes of blood during gestation. He has remarked, in accordance with other accoucheurs, that

eighty out of one hundred cases of eclampsia occur in the first pregnancy, when resistance of the abdomen and pressure upon the kidneys are greater; if eclampsia appears in a subsequent pregnancy, there is a considerable quantity of liquid in the amnios, a very voluminous fœtus, twin-birth, or there exists malformation of the pelvis, etc.

Excepting albuminuria and œdema in the lower limbs, eclampsia is seldom preceded by other symptoms; disappearance of the latter is considered by Frerichs unfavorable, as it increases uræmia by stoppage of sanguineous depuration. Eclampsia arises suddenly during labor, particularly when pains are most acute; it may be that, previous to its explosion, the woman has giddiness, cephalalgia, hallucinations, pain in the loins, nausea, frequency of pulse, and anxiety in respiration; but, as I said before, suddenly all the voluntary and many of the involuntary muscles are taken with convulsions. The face at once becomes pale, there is loss of consciousness, and a moment of calm; afterwards the face is injected, bluish, the features are contracted, the eyelids and eyes convulsed, the pupils permanently dilated, the tongue protrudes, and is bitten by the grinding of the teeth, the mouth is filled with bloody foam, respiration stertorous or suspended, the heart beats irregularly; the pulse is irregular and frequent, the jugular swollen, the muscles in the neck contracted, the limbs stretched in spasmodic contractions, the fingers grasp the thumb flexed into the palm of the hand, and the whole body is immovable and violently convulsed. Water and feces are passed involuntarily—uterine contractions are suspended, and the os uteri is undilated. This period lasts a minute or a half; it has been known to continue for even an hour; the convulsions reiniting, general perspiration ensues; the limbs relaxed remain paralysed; sensibility is diminished or lost; respiration is slow and rough, and there is stupor or coma, which may continue for hours, or even for two or three days. The attack, which is seldom one only, returns several times at variable intervals. I have seen it recur twenty-seven times in nine hours, the patient dying during the last convulsions.

The diagnosis of eclampsia is very simple; it might be mistaken for epilepsy, and I doubt whether both are not the same disease brought on under different circumstances; but pregnancy and the nature and frequency of convulsions will at once distinguish them apart. Neither is it likely to mistake eclampsia for hysterical fits, in which there are violent movements, but no loss of consciousness, no foam issuing from the mouth, and the attack disappears without the sopor of eclampsia, generally followed by a considerable secretion of quite clear urine. In neither of the two cases will there be albuminuria, so common with eclampsia.

It is always necessary to ascertain whether albuminuria supervenes in a pregnant woman, in order to make it disappear and to avoid eclampsia. There are many ways of detecting albumen in the urine: the best and easiest are ebullition, or to treat urine with nitric acid. In both instances a precipitate is produced; but in the first test the urine must be neuter, as, if alkaline, the precipitate should not be manifest; in the second, it may happen that uric acid is likewise precipitated; an excess of nitric acid or ebullition will dissolve it at once. In examining the albuminous urine of pregnancy, you should be aware that the cupro-potassic liquor does not produce with it the same reaction as in cases of Bright's disease. In the latter there is a red violet coloration of the cold urine caused by the liquor, and if warmed, a black flocculent precipitate of sulphuret and phosphuret of copper; whereas no reaction whatever is obtained with urine of pregnancy. You may also examine the urine with a microscope, and find in it the epithelium and cylindric fragments of uriniferous tubes, as also transparent coagulated fibrin, and sometimes *hematies* and granular cells. As to the relation between the quantity of albumen in the urine and the existence of eclampsia, it has been observed by Biot, that albumen is much increased in women threatened with eclampsia; in

simple albuminuria the proportion of albumen is one-third, and quite four-fifths if there is eclampsia.

Puerperal eclampsia, in more than half of the cases, is fatal in its course. Whenever albuminuria attends pregnancy, be prepared for an unfavorable issue; if eclampsia does not take place, there is abortion, or the fœtus, if born alive, is afterwards affected with convulsions. Therefore, we must prevent albuminuria as best we may; depending principally upon a mechanical course, the best remedy against it being to support the womb, to avoid pressure upon the kidneys and blood-vessels. You will attain it by advising the woman to keep herself inclined forwards, resting upon her arms for fifteen or twenty minutes several times a day. I know from my friend Dr. Brown-Séquard, who first advised this means, that he at once made a change in the state of the urine, by so doing every morning, in the case of a pregnant woman, who suffered from albuminuria. But when no premonitory symptom announces eclampsia—as, indeed, is generally the case—and you meet with it at its very outbreak, the treatment must be prompt and energetic, for then the life of both mother and child are seriously threatened. Two things to be remembered are: that the ventilation of the room be kept free, and the temperature cool; and likewise that no effort be made to hold the woman, as it will bring on strong convulsions. Bleeding has been praised by celebrated obstetricians, as a first remedy for eclampsia, the idea of plethora as a cause of convulsions suggesting it, but the results have scarcely justified the praise bestowed; with few exceptions, it has been the same with other convulsive diseases. Unless under special circumstances, bleeding should be discarded in the treatment of eclampsia; this opinion, which I unhesitatingly express, is based not only upon what I have seen myself, and from the effects on numerous cases of eclampsia reported by authors, but also upon the practice followed by leading men in obstetrics.

The best remedy for eclampsia is the use of narcotics, and, when at hand, none is preferable to chloroform. Since Simpson proved the advantages of anæsthesia in midwifery, its practice has been general in England; in France it has not been so freely accepted, and in Germany, Braun says, that for eclampsia *chloroform surpasses all expectations*. It should be administered previous to the attack; if convulsions have come on, you may calm the patient, and even stop the fit, by sprinkling cold water on her face, profiting by this moment for the inhalation of chloroform, which allows the continuance of labor, and so may spare the life of the child. Immediately after the delivery, the placenta should be taken away, as its retention may give rise to new convulsions. The operation under chloroform should be performed without delay, not only to save the child, but also because prolonged anæsthesia, by its influence upon respiration, determines stagnation in the veins, and abundant hemorrhage, unfavorable to the mother. Internally opium is prescribed in high doses. Scanzoni advises one-fifth of a grain of acetate of morphine, and an enema with twenty or thirty drops of landanum, to be repeated every half hour, even after labor, till the patient sleeps. Instead of an enema, a suppository, with one grain ext. belladonna, should be preferred, when convulsions are due to acute pains during labor; to this should be added a cold application to the head; as to the internal use of ether, valerian, musk, and other antispasmodics, they are more efficacious after labor is finished, to do away with the remaining trifling convulsive state.

Eclampsia, however, may occur in advanced pregnancy, and it is important in such an event to know whether premature labor should be induced. General opinion upon this subject is negative; if the convulsions should be very violent and repeated, and uterine contractions manifest, it would then be advisable to bring on artificial labor, but do not trust in this far from innocent operation, unless followed by the disappearance of albuminuria, which often persists after delivery; besides which, puerperal fever may ensue.

The effects of eclampsia from uræmia upon the fœtus are usually fatal. If not born dead it will soon afterwards die. It has been thought that the stoppage of circulation in the placenta caused the death of the fœtus; but Braun has proved it to be due to the passage into the blood of carbonate or ammonia, always easily detected upon immediate examination of the blood of the child, whether born alive or dead after eclampsia. The fœtus often dies, even when the mother, affected with albuminuria, has had no convulsions whatever.

A last question as to eclampsia. Should a woman, having suffered with it, be advised to have no more children? In primiparæ if eclampsia has been due to albuminuria from mechanical pressure upon the kidneys, or to reflex actions after acute pains, there will be no sufficient reasons for the advice; but if malformation of the pelvis existed, or if after delivery the urine continued with the characteristics of Bright's disease, and there were amaurosis or any of the nervous derangements associated with the latter, it would be very prudent for the woman not to expose herself to a new, serious, and quite certain danger.

Eclampsia puerorum is mostly known under the generic name of infantile convulsions, so frequent during early infancy, and decidedly consequent on hereditary predisposition. They may exist in the fœtus after emotion of the mother, or independent of this cause, it being now evident that convulsions in so tender an age are one of the causes of congenital deformities. Teething, helminthiasis, and derangement in the digestive functions, are common causes of infantile convulsions, which may, however, be idiopathic. Stout and well developed children are those liable to the disease; this may supervene, preceded by insomnia and great irritability and change in the child's disposition, but most usually the outbreak of the fit is without warning; the child loses his senses, is pale, and immediately afterwards exhibits convulsive movements in one limb, on one side of the body, or simply in a group of muscles; the pulse is weak and frequent, breathing rough and difficult; almost always the eyes are convulsed, the pupils dilated, and squinting perseveres often long after the remission of the other symptoms. You will observe in infants at the breast during the attack, or after it, a greenish diarrhœa, improperly considered by many physicians as symptomatic of inflammation in the intestines. I have myself had an opportunity of ascertaining, after several post-mortem examinations, that this evacuation is only due to abnormal secretions from the intestines, mixed with bile poured into them during the fit. In enteritis, the diarrhœa has usually a grey-yellow or dark coloration, even when very liquid. Acute diseases in children, especially eruptive fevers, may be attended with convulsions; in encephalitis, they are the symptom in the period of excitation. Idiopathic convulsions are very serious; often repeated, they impair the intelligence of the child and even cause idiocy, if they do not determine congestion in the brain or asphyxia. The danger is less with a simple attack; the child remains afterwards dull, but soon recovers his senses. Among the ordinary consequences of convulsions are, contraction and paralysis, this of a relapsing character in the beginning, and, as I said before, mutable in its location. Convulsions likewise predispose to one of the most dreadful diseases, epilepsy, in the early stages of which they frequently exist.

In symptomatic convulsions the treatment should be directed against the disease on which they depend. In cases of indigestion you may resort to such means as induce vomiting—titillation of the uvula, or administration of tepid water with one or two grains of antim. potass. tart. As soon as the stomach is empty the child will be calm, and you should never be imposed on by the idea theoretically advanced by some authors, about the ill effects of vomiting upon the brain. Anthelmintics should be prescribed in cases of worms, and for convulsions from teething the remedy will be cutting the gums.

I have remarked that bleeding was unfavorable in eclampsia puerperalis, and, as far as I am aware, the result

is the same in cases of convulsions in children. Let it be understood, however, that I do not allude to convulsions from encephalitis or meningitis, as, under such circumstances, blood-letting is indicated, though unsuccessful, like other remedies, against these two fatal diseases.

Cold affusions to the head, keeping the child in the open air, and freely dressed, are beneficial in stopping the fit. Trousseau proposed, and with other physicians has resorted successfully to compression of the carotids, also advised for epilepsy. I have no doubt as to the success obtained in convulsions with the means proposed by the learned professor already named; but I will remark that with epilepsy the result is very uncertain, as I have tried compression of the carotids upon several occasions without any benefit whatever, and have even found the convulsions afterwards become more powerful.

It is curious that in children convulsions mostly occur in the daytime, and frequently starting from the stomach. I have seen the cases of two sisters, one seven and the other five years of age, in whom convulsions occurred while fasting. The eldest girl was regularly every morning taken with giddiness, loss of consciousness, and mild seizure in the arms. With the sister, the attacks were less frequent, and reduced to giddiness and fainting. Both were attacked shortly after rising from their beds. I advised them to breakfast upon getting up, and by this easy remedy, combined with tonics and exercise in the open air, the alarming accident disappeared.

One of the surest remedies for infantile convulsions is belladonna; one-eighth or one-twelfth grain taken night and morning and continued after cessation of the fits. It happens that the effect is not manifest till after six or eight days, and that the convulsions are not at once stopped. You will likewise observe when convulsions are suddenly cut short, that if a fit recurs it is usually of a severe character. All this, however, should not be a reason to give up belladonna, which, if continued, proves beneficial. Hyosciamus, opium, musk, oxyde and sulphate of zinc, camphor, and several other substances, are also employed with advantage; but whichever may be the internal treatment selected, it is necessary to add all those means apt to modify the constitution in a rapid manner, such as hydrotherapia, gymnastic exercises, a regular diet, etc.

Chorea is a convulsive affection, characterized by irregular and violent movement, independent of consciousness and without any co-ordination whatever; generally observed in children, especially in females, between seven and fifteen years of age. It is a disease very seldom fatal, independent from organic lesion in the nervous system and sometimes the effect of imitation. Several pathologists, and Trousseau among them, have admitted many varieties of chorea; the division is more scholastic than practical, and therefore I overlook it, to treat only of the disease generally known as chorea or St. Vitus's dance. This affection generally comes slowly and preceded by insomnia, except when brought on suddenly after violent emotion. It appears mostly in the left side of the body, the arm being first affected. Some English physicians, and Dr. Sée, of Paris, think that rheumatism is an ordinary cause of chorea, but this opinion, not supported by sufficient facts, seems very improbable, because, as remarked by Grisolle, such a rare disease in children as rheumatism could not be the origin of so common a one as chorea. When convulsions exist in both sides of the body, one is more shaken, more weak, and less sensible than the other. Memory is disturbed or impaired in a degree proportionate to the severity of the disease. There will be mutations in the paralysis; the most affected side, after reaching a maximum point, recovers its normal power, while convulsions and the palsied state go on increasing in the other. When the lower limbs are taken, the manner of walking is peculiar; the legs, no longer obeying the will, are irregularly and suddenly advanced—they jump and occasion that oscillation from which the disease derives its name of St. Vitus's dance. In some cases convulsions being very violent, the child cannot stand, and

fails, much agitated, hurting himself against the surrounding objects. Under these circumstances cerebral congestion may take place, or vomiting, dyspnoea, and even movements in the heart may become irregular, and then the pulse is intermittent and frequent. This serious state is, however, rare. Chorea is continuous in its march, generally lasting from three weeks to five or six months. If severe, it is never cured within a month; when death occurs it is preceded by violent convulsions with the symptoms already mentioned, and a variable state of collapse or coma. Science records but very few cases of intermittent chorea.

There is a very great diversity of means for the treatment of chorea. Internally, opium has been administered in large doses by Trousseau; half a grain taken every hour up to eighteen grains in the day, keeping the patient under narcotism for four or five days, and letting him repose some time, to resume the same treatment, which makes the disease disappear in a few days. In other instances, the same physician has administered eight grains of morphia in one day; he has also made use of strychnine, beginning with a dose of one-tenth grain, increased till tetanic contractions appear. Though successful, the two first means are not sure, and very dangerous to be so hardly resorted to. I have seen opium administered, not so freely as by Trousseau, but still inducing sleep, and instead of the convulsions subsiding they were very much exasperated. Not so with strychnia, which in several cases has proved beneficial. Arseniate of potash is much employed in England: ℥ij. of the liquor at the commencement, and increased to ℥v. in the day. In the only case thus treated and observed by me, there was dysentery on the fifth day, certainly independent from the remedy, but which, however, caused the disease to disappear.

Chloroform has been used with advantage, and to be successful anæsthesia should be complete and repeated several times in the day. Full doses of sulphate of quinine have been beneficial in severe cases of chorea, but in ordinary ones its effects are uncertain. So it is with assafoetida, oxyde and sulphate of zinc, iodide of potassium, preparations of iron, copper, and with many other substances.

The most efficacious means are indeed sulphurous baths and cold douches, which have a remarkable and rapid influence upon convulsions and the intellectual derangement. The first must be taken for an hour every other day. At the same time gymnastic exercises are of great utility, but they should be rhythmically performed, as advised by Dr. Sée. Electricity is likewise successfully applied against chorea. A wet repophone is put directly to the skin of the limb, and a metallic brush connected with the other is passed several times along the skin to stimulate its circulation. With this means, several times tried by Golding Bird, Briquet, and other physicians, the patient gets well after a few applications of galvanism.

DISEASE OF THE HEART IN CHILDREN.—Dr. William Moore gives the following statement of the frequency of diseases of the heart in early life:—Of 2,584 children treated at the Manchester Clinical Hospital, diseases of the heart and circulation occurred in sixteen. Among 411 patients treated in the Hospital for Sick Children, Great Ormond Street, London, only four, three females and one male, two under, and two above ten years, suffered from diseases of the heart; and of 9,857 cases, as externs, thirty-three instances of cardiac disease were observed, of which thirteen were females, and twenty males; three above, thirty under eleven years of age. Of 3,500 cases treated at the Institution for Diseases of Children, Pitt Street, there were only eight cases of chronic cardiac disease observed (congenital malformations excepted), four of which were females, and four were males, the females aged respectively five, seven, and fourteen years; the males six, eight, eleven, and fifteen years."—*British Med. Journal*.

Original Communications.

CONTRIBUTIONS TO MILITARY SURGERY.

By ZINA PITCHER, M.D.,

OF DETROIT, LATE SURGEON, U.S.A., ETC.

THE medical reminiscences of my army life are not very extensive. In my own opinion my best field for medical observation has been found in the civil and marine hospitals of this place, the former of which I have been in charge of since 1848. The first fifteen years of my professional life were spent in the army; the last fifteen, in the duties referred to.

This branch of the public service, with which I was so long connected, has not been productive in medical literature. The war of 1812 gave origin to Mann's Medical Sketches, subsequently to Beaumont on Digestion, Byrne on Malignant Cholera, Tripler on the Inspection of Recruits, and recently the joint productions of the Medical Staff, consisting of the Army Meteorological Register, and the Medical Statistics of the Army. These, with some papers published by the American Medical Association, and an occasional essay scattered through the periodicals of the day, constitute the bulk of the contributions made by the army to the medical literature of the country.

As in our profession generally, so in the medical staff of the army, there must be lying dormant a great amount of unwritten knowledge, which long ere this should have been turned into the proper channel. For this literary sterility on the part of the army medical staff there are excuses to be made which do not so well apply to members of the same profession in civil life. When the members of this corps have passed their initiatory examination, they are often assigned to duty with detachments of troops requiring but a single member of the medical staff. They are consequently not subjected to that kind of mental conflict, in which men in the same pursuit attain position in civil life. The migratory life of the soldier, and the eminently social nature of officers of the army, are also impediments to authorship.

In the American army, except during periods of actual hostilities, or on temporary tours of field service, the members of our medical staff have not a wide field for surgical observation, or favorable opportunities for the exhibition of those admirable qualities, which, by general consent, they are admitted to possess. It is on these occasions of active duty that they meet with that class of injuries which makes it necessary for them to decide with promptitude when immediate amputation has become necessary, and when, by waiting for reaction to take place, the chances for recovery, both from the injury and the operation, may be increased by delay.

Not only those occasions incident to a state of war, but the introduction of steam into universal use as a mechanical power, by the explosion of boilers and the collision of steamboats and locomotives, causing so many injuries, closely resembling those occasioned by the bursting of heavy pieces of ordnance and the projection of cannon balls, must make not only works on general surgery, but books on military surgery especially, defective, unless hereafter more particular attention is bestowed by their authors to the subject of

Shock in its Surgical Relations.—I propose to express with brevity the opinions I entertain on this point, and to narrate as succinctly as I can, the circumstances under which those opinions have been formed.

In contemplating the nervous phenomena characteristic of shock, I have accustomed myself to consider them in connexion with the momentum of the object by which they have been superinduced; and also the circumstances by which the after-treatment may be affected; as, whether the wounded are to be carried long distances on litters or in

ambulances, whether the hospitals designed for their reception are of suitable dimensions and proper construction; and what I regard of paramount importance, the nature of the epidemic influences by which the troops are surrounded, and the diatheses of the diseases that may be prevailing among them. I wish also to say a word on the use of *anæsthetics*, in cases of shock with doubtful signs of reaction, and on the conditions, independent of diet, under which scurvy may be developed in a camp or in a garrison.

One man may have a leg carried away by a cannon ball, and another a corresponding limb removed by an eraser, each being mutilated in the same degree, but exhibiting widely differing symptoms. The first may be unconscious of pain, but will be faint, pallid, and cold. His pulse will be frequent and feeble, respiration anhelating or suspirious, attended with nausea, and possibly hiccough. The other, whilst complaining of pain, will have a much more natural temperature, without manifesting such remarkable changes in the movement of the heart or action of the respiratory organs. As mutilation may take place without the constitutional signs of shock, so we may have present the symptoms of the latter without local lesion, it being directly the result of moral impressions. Hence it becomes necessary for us to study the relation of the constitutional symptoms to the extent and character of the local injury and the idiosyncrasies of the subject; and in order to determine whether they have been occasioned by the impulsion of a physical agent acting upon the organism, or the depressing influence of sedative mental emotions, both the magnitude and the velocity of the body causing the injury, and the temperament of the victim, are to be taken into account.

Where the symptoms are present in any case of sudden and violent injury, which go to show that a strong impression has been made upon the nerves of organic life, there will be no division of opinion in relation to the constitutional remedies proper to be used for their removal. All will concur in advising the administration of alcoholic stimuli, camphor, ammonia, and opium, in stimulating doses, and the application externally of dry and moderate heat. The surgical treatment of these cases gives origin to questions of the gravest importance, on which the best men in the profession take directly opposing, if not antagonistic, views. These involve not simply the interrogative—Is not amputation a necessity? but include the inquiry—Can it be performed with safety to the patient, and at what time shall it be done, immediately or after reaction shall have been established?

We meet, in active professional life, both out of and in the military service, cases of the kind under review, in which reaction never occurs, whether the injured limb be left with the blood oozing from its torn and ragged extremity, or the half-living mass be removed by the knife of the surgeon. It is at this point when cases less fatal are presented that the opinions of practised men begin to diverge, one class advising delay and the other prompt and decisive action.

When I have found myself thus situated, with only my own judgment to appeal to, even when it was doubtful if reaction would occur, whether with or without the operation, I have removed the mangled mass of flesh, and believe now, after long reflection, that I have in no case increased the hazards of my patient by the enforcement of such a rule.

It must have been observed by others, as well as myself, that operations performed under such circumstances are comparatively painless, the shock in fact having superinduced a condition of the system allied to *anæsthesia*. When the limb has been removed, we at once get rid of an exhausting stilliciduous hemorrhage, and of the depressing corporeal and moral influence that the consciousness of its presence has upon the physical and mental strength of the patient. We increase at the same time our facilities for the application of heat, and acquire a moral power by arousing the sentiment of hope to assist us, which we cannot invoke as long as the mangled extremity is in view. Another

advantage is gained by an early operation, in the shutting off from contact with the wounded surfaces the deleterious effects of vicious atmospheric contagions.

If we decide that an operation is to be postponed, we must apply a tourniquet to the stump, or the patient will lose strength by the exhaustion which even a guttation hemorrhage will produce. What is gained by the means thus used to restrain the loss of blood, we sometimes lose in the profound sedation of the limb, resulting from the pressure of the tourniquet. Besides this, we invite the invasion of hospital gangrene, if in the wards, and erysipelas, if in the vicinity, by the exposure of a gaping wound to atmospheric influences. Having removed the mangled mass, we continue the generally approved remedies for the restoration of animal heat and vital force, adding such articles of nutriment as can be borne by the organs of digestion. The dressings should be dry and warm, and the extremities kept at a natural temperature by artificial heat.

It will be observed that in what I have said on this subject, I have spoken only in such general terms as will serve to convey my idea of the principle by which my own conduct has been governed, and by which I would direct the action of others, and that I have not affected the precision of a clinical instructor. Such cases as I can most distinctly recall, illustrative of what I have already said, I propose to speak of in connexion with the use of anæsthetics in cases of shock, the effects of which I think it my duty to place on record, they being the results of my own experience in its administration where the subject was approaching the state of collapse.

Whenever there is sufficient force in the circulation, and nervous activity enough to sustain the patient, I would give my voice with the general judgment of the medical profession, by which the use of anæsthetics in the severer operations of surgery is sustained. But regarding them as poisons of a sedative class, which when introduced into the blood, produce cerebral exhaustion and cardiac syncope, if they do not change the physical and vital properties of the blood itself, I feel obliged to remonstrate against their use in cases of syncope or nervous exhaustion. Two men were conveyed to the hospital under circumstances so nearly identical that I could scarcely say wherein they differed, unless in temperament, each having had a leg carried away so near the knee that amputation was performed above the joint. They were nearly of the same age, both had good constitutions, and neither of them was intemperate. One was put under the influence of chloroform, and the other not. Neither made favorable progress; but the one subjected to the influence of the anæsthetic came out of that condition with increased prostration, and never regained what he had thus lost. The other rallied slowly, and union of the wound took place very late. The increased prostration in the first case may be explained on either of two hypotheses; but the latter example, strengthened by others, inclines me to impute the increased prostration to the anæsthetic rather than to the operation.

The case of a seaman who was brought into St. Mary's Hospital, furnishes so good an instance of the inapplicability of anæsthetics in some of the severest injuries, and affords so striking an example of the ability of a vigorous constitution to emerge from the most desperate condition, that I am tempted to mention it, although it belongs to maritime rather than to military surgery. A. B. was standing on the deck of a propeller, directly over the boiler at the time of its explosion. The uplifting force caused a compound dislocation of the knee, the condyles of the femur being thrust forward, tearing up the ligamentum patellæ, the capsular and crucial ligaments. The leg and thigh were held together by the tendons constituting the outer and inner hamstrings and the vessels and nerves lying in the popliteal space. He had a severe scalp wound also, and with it signs of concussion of the brain. The cerebral symptoms blending with the general phenomena of shock, rendered the use of chloroform entirely inadmissible, and the jactitation of the patient made it equally

necessary to remove the leg. A very good reaction followed the operation, the stump healed kindly, and the man seemed to be rapidly recovering, when symptoms of cerebral suppuration supervened, and put an end to his existence.

Peculiar Wounds of Cannoniers.—There is a kind of injury to which cannoniers are only liable, caused by the ignition of a cartridge before the loading of a gun is completed, either from carelessness of the man at the vent, or a honeycombed state of the gun, in which the men who sponge the piece and ram home the charge are always the sufferers. The injury in these cases may consist of a burn, a contusion, and a laceration more or less severe, the latter depending upon the firmness with which the sponge staff may be grasped at the moment of the explosion, and the former upon the proximity of the arm to the muzzle of the piece. I allude to these cases because of the liability there is, on a superficial view of them, to form very erroneous opinions of their nature and extent. At first sight we may conclude that the injury is limited to the fingers, one or more of which has been carried away. Probably the palmar fascia is torn and the thumb fractured. A close examination may show that the violent and sudden extension has paralysed the radial and ulnar arteries, and lacerated many fibres of the flexors of the hand and wrist, and possibly the integrity of the shoulder-joint may be seriously impaired, of which the following case is a rare example.

F— was one of a firing party detailed to fire a national salute. The premature discharge of the gun was caused by fire concealed near the breech. His hand was torn and burned, and the bones of the forearm were broken near the wrist. Finding that the arteries at the wrist were included in the injury, I amputated the forearm near the elbow-joint. At the place chosen for the operation, I found, on making the circular incision, that there was a good deal of extravasated blood, owing to the laceration of many of the fibres of the supinator longus, flexor carpi ulnaris, radialis, profundus, etc. After the stump was dressed, I had the mortification to find that the forearm and hand were not alone injured. A careful examination of the shoulder showed that the long head of the biceps had been torn off, the two spinati muscles much lacerated at the place of insertion, and the capsular ligament rent so far, that the distance between the head of the humerus and glenoid cavity was quite distinguishable to the sense of touch. The arm thereafter hung upon the shoulder a useless weight, serving no other purpose than to prevent the lateral curvature of the spine which uniformly follows the loss of the entire limb.

Another gunner lost part of his right hand by a similar accident. The radius and ulna were fractured, without corresponding injury of the integuments. His arm was dressed by a citizen practitioner, who had no suspicion of the effects that follow such violent extension of the arterial trunks as takes place in injuries of this nature, when the tegumentary tissues are not broken. Gangrene followed rapidly, in consequence of the loss of resilience in the arterial tissue. In consequence of this misapprehension of the nature and extent of the damage done to the muscular and vascular structures, when men are wounded by exposure to this form of violence, this patient lost much more of his arm by the postponement of the operation than would have been necessary, had amputation taken place at an earlier day.

Scurvy among Troops, traceable many times as directly to Psychological as to Physical causes.—The first regiment of dragoons, destined to service on the Missouri and Arkansas frontiers, was raised in 1833. The companies composing it were filled with young men, many of whom had previously been engaged in the more pleasant pursuits of civil life. They abandoned their former occupations, and eagerly engaged in a service which placed before them the expectation of making a trip to the Rocky Mountains on horseback, in which they anticipated much enjoyment from the novelties of prairie scenery and the excitements of the

buffalo chase. The first battalion of this regiment left its rendezvous at St. Louis in the autumn of that year, and encamped for the winter in the neighborhood of Fort Gibson. In order to obtain forage more readily for their horses, the troops were encamped in low ground, in the vicinity of a cane-brake. The men were quartered in tents, floored with puncheons. They were fed upon the soldiers' rations, consisting two days in the week of fresh beef, and other days of salt pork or beef and beans, and every day fresh bread, coffee, and sugar. Frequently, but not daily, they were supplied with vegetables from the root-houses of the Seventh Infantry, which occupied Fort Gibson. The bright anticipations of a campaign upon the prairies having been shaded down into the dull realities of a winter life in tents, the men, from disappointment, became home-sick and disgusted with the service. Under these circumstances, the scurvy made its appearance among the enlisted men of the battalion, some of whom died. The question naturally arising out of this state of facts is this: Are we to impute the outbreak of scurvy among these troops to the influence of diet, or to the depressing effects of the mental causes constantly acting upon the brain, and by it reflected to the digestive centre? On this subject I might have had strong and very reasonable doubts, had I not seen some of these men, who had been told that they should have their discharge as soon as they were able to travel, revive from that hour, and gradually recover. Are not nostalgia and scorbutus very nearly related? Men sentenced to solitary confinement, and to live on bread and water, will become scorbutic. Why is this so?

PERITONITIS;—SLOUGHING OF THE COATS OF THE INTESTINE.

By FREDERICK D. LENTE, M.D.,

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P. E., aged 19, in good general health, applied at the office on Friday complaining of some "soreness" in the right side of the abdomen; the spot over which this soreness extended was quite circumscribed, and corresponded with the situation of the caput coli. He said he was running very fast, a few hours before, and then for the first time felt the pain. There had been no previous constipation or other abdominal difficulty. Being engaged myself, Dr. Richerson, my assistant, prescribed for him. The next day he was sent for, and found the symptoms more decided and alarming. The tenderness over the region above referred to was much increased, and extended over a larger surface; and the pulse, which was natural at his first visit, was now much accelerated, as the bowels had been evacuated. He was now put on anodyne treatment, and perfect rest in bed enjoined. Subsequently the pulse rose to 130, and veratrum viride was resorted to, which, after several large doses, reduced the frequency to 70, and at times even less. About this time vomiting supervened, and continued at intervals until death, but not to prevent a due amount of nourishment which was kept up in the form of beef-tea, chicken-jelly, etc., and as symptoms of sinking supervened, with the addition of brandy, and egg-nog to the last. The pain which, after the second day, extended over the whole of the lower part of the abdomen, and was very severe, was controlled by morphine, at first by the mouth, subsequently by the hypodermic method, or by enemata. Delirium set in early, and regularly increased till within twelve hours of death. The anodynes had no effect on it, nor did they procure any sleep; the patient being wakeful day and night throughout the last few days of his illness. About once in two days, emollient enemata were given as the tympanitis, which was never very great, threatened to increase; these generally acted well, and always with temporary relief to the symptoms. On Thursday, the seventh day, he seemed better; the abdominal pain and distension were decidedly less, although he had taken less opiate for twelve hours; his pulse was of better

character, and he had about an hour's sleep. On Thursday night, however, Dr. Richerson was called to him, and found him complaining of severe pain in the epigastrium or a little below it; there was scarcely any pain on pressure over its original seat. This pain was only controlled by large doses of morphine administered by the hypodermic method, and from this date he gradually sank until Saturday, the ninth day of the attack, when he died.

Autopsy, twenty hours after death.—Weather cold, body in a cold room, no signs of decomposition. Circumstances rendered a hurried examination necessary, the father being present. The abdominal cavity only was examined. Upon cutting through the walls the viscera, at the upper part of the cavity, were found glued to them by soft adhesions, so that a slight nick was unavoidably made in the small intestine; this was immediately tied up. While separating these adhesions with the fingers towards the stomach, fluid fecal matter was seen gushing out of a considerable opening, also in the small intestine; the towel was accordingly tied on either side of the rent, so as to prevent further extravasation. The intestines were extensively adherent to the abdominal walls, through the medium of a thick soft layer of lymph, and also to each other; pockets, more or less considerable, were also found by these adhesions, containing puriform matter, with shreds of lymph. A large quantity of this was found in the iliac fossa, especially in the right. Both the parietal and visceral layer of the peritoneum was intensely infected, especially on the right side. The stomach, small and large intestines, were carefully removed for examination. The stomach was perfectly healthy, as was the large intestine, except its peritoneal coat, which was moderately inflamed. The appendix vermiformis, to the extent of about three quarters of an inch nearest the cæcum, was perfectly healthy as to all its coats, and contracted, the remaining portion extensively diseased, and partially disorganized; the free extremity having been destroyed, and there being large ragged openings in its walls; the lining membrane dark, thickened, and coated with an exudation of lymph. The cæcum, and the ileum for about six inches from it, were healthy, with the exception of a moderate infection of its peritoneal coat. From this point, throughout several feet of its course, the small intestine was the seat of the most intense inflammation as to all its layers. About a foot from the caput coli there existed a patch of grey slough, about an inch and a half long by an inch broad, with irregular but well defined edges. This slough extended through all the coats, but had considerable tenacity. About a foot from this point another similar slough was found, and a few inches higher another; this being the seat of the perforation previously referred to as having been tied off to prevent extravasation. At other points in the neighborhood of these spots, there were patches which at first sight appeared similar, but upon examination proved to be only tough lymph which could, with some difficulty, be separated from the peritoneal coat by scraping with the scalpel.

CASE OF DEATH FROM PYÆMIA.

AFTER EXSECTING A PORTION OF THE TIBIA.

By E. S. COOPER, A.M., M.D.,

PROFESSOR OF ANATOMY AND SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC, SAN FRANCISCO.

As pyæmia is an extremely rare disease in California, and death from any operation upon the bones is still more rare, it is thought that the following case of death from these causes should be reported. This disease often declares itself early by positive symptoms, such as rigors, twice in twenty-four hours, a very torpid condition of the sensorial powers, great prostration of physical strength, and delirium. Frequently, however, its progress is very insidious, and there is nothing to indicate its existence but an extreme degree of mental and physical prostration, continuing for some time without any material change in the condition of the patient. Such was the following:

Mr. G. K., æt. 43, was operated upon in November, 1860, for the removal of caries of the outside, and long standing suppuration inside of the lower end of the tibia. His general health was feeble, and his spirits, naturally low in health, were very much depressed at the time of the operation. His countenance was anxious, and all efforts to inspire confidence and produce cheerfulness were unavailing; a condition that often does as much to portend a fatal result in an effort to cure by the knife as a dangerous surgical operation itself. The operation consisted in making an incision eight inches long over the anterior surface of the lower portion of the tibia, commencing six and a half inches above, and terminating one and a half below the tibio-tarsal articulation. A transverse incision was made from the first over the internal malleolus, and flaps reflected until the lower end of the tibia was fully exposed, when four inches of that bone were removed. It was very much enlarged, carious on the external surface, and containing many small abscesses inside near the centre. The medullary canal was obliterated. A portion of the articulating face of the os astragalus was found diseased, and required removing, as also did a part of the scaphoid. But this is not what may be considered in San Francisco an extensive exsection of bone. Surgeons in active practice here are constantly removing greater portions, and nearly always with success; removing, as in this case, a part of all bones diseased, but taking the diseased part only and leaving the balance in situ. Even the cuneiform bones are not removed entirely when only a part is found diseased.

In this case the patient was of the hemorrhagic diathesis and a persistent though not severe hemorrhage (not from any vessel in particular) was kept up for four or five days in spite of strong pressure. The patient became greatly prostrated at the end of this time, and remained without much change for about three weeks, when a cachectic condition of the system was manifested, which was attributable to purulent infection, though the symptoms were of that insidious class which are occasionally met with in that affection.

An unaccountable degree of prostration now rapidly supervened, and the pyæmia declared itself in a positive form. Rigors occurred twice in twenty-four hours. A sloughing condition was set up involving not only the extremity operated upon, but the whole exterior of the body. The skin appeared to be in a disorganizing condition, the slightest pressure producing destruction of the cuticle. The whole surface became icteritious, and the patient gradually sank and died, two months after the operation, from purulent infection, received from the veins of the diseased bones.

This disease is usually the result of an injury in a person of vitiated condition of the system, either naturally or acquired. Thus a person of strumous habit in the one case, or one who has been confined in a crowded hospital, or is scorbutic in the other, undergoing an operation, particularly if it involve the bones, is liable to die from purulent infection or pyæmia. But in California, where the climate is unequalled in its power to prevent this state of the system, deaths from pyæmia can seldom happen; and I doubt but little that I am now recording the first case that has ever occurred after a comparatively trivial operation like the above on this coast.

NEW TREATMENT FOR SCABIES.—DR. METZEL, of Cracow (*Bull. Gen. Therapeutique*, Feb. 28, 1861), reports eighty cases of this disease, cured by the local application of phosphorus and olive oil in the following proportions:—Two drachms of phosphorus are introduced into sixteen ounces of the oil, and the whole subjected to a temperature of 212° Fahrenheit.

FUNCTIONS OF THE SPLEEN.—Prof. MAGGIORANI, of Rome, after numerous experiments, has come to the conclusion that the Spleen contributes directly to the formation of red blood, and secondly has the power of converting sugar into fat.—*Gaz. Med. de Paris*.

Reports of Hospitals.

LONG ISLAND COLLEGE HOSPITAL.

DR. F. H. HAMILTON'S SURGICAL CLINIC.

ARREST OF DEVELOPMENT.

[Reported by GEO. H. MARVIN, Medical Student.]

ANN KERRIGAN, æt. 2½ months, of Brooklyn, was born on the 21st of Jan., 1861. Three days after the birth of the child, Dr. Lynch, who attended its mother during her confinement, sent the child to the Hospital, in order that Dr. Hamilton might see it, when the following notes were made.

CASE.—Left foot, valgus, four toes; right foot, valgus, three toes; left tibia and fibula bent, angle salient forwards; most salient point a little below middle; a slight longitudinal depression in the integument three lines in length, corresponding to the most salient point of the tibia and fibula. The same deformity exists in the right tibia and fibula, the angle being more prominent, however, and in the centre of the longitudinal fissure, there is a dimple-like depression. Both thighs are also much curved, the right most, convexity outwards. A depression in the back, corresponding to the base of the coccyx. This last fact, Dr. H. thinks a convincing proof that the case is one of *arrest of development*. The spine, at some previous time in utero, must have been exposed at this point, the opening having closed in the womb. The cause is supposed to be some disease of the spinal marrow, or its investments, in the child. Dr. H. then recommended to Dr. Lynch to try to straighten the limbs with splints, &c., and, should this fail, to break the leg, and then straighten.

The child was brought before the class to-day, some accident having occurred to it five days since. Some new facts were elicited from the mother, who brought it to the Hospital. In reply to Dr. H.'s questions she stated that this was her first and only child, and that she did not recollect having marked it. Neither she nor any member of her family, as far as she could recollect, had had any deformity.

Dr. Hamilton observed that these cases were very often mistaken for fractures in utero, which are rarely met with, and many of them have been reported. The sulcus, before spoken of, looks as if it had been cut with a knife. It is the same on both legs, but not so deep in the left as in the right leg. It is improbable that both bones should be broken. There is arrest of development in the spinal column, which is commonly known as *spina bifida*. This, without doubt, has its source in some defect of the spinal marrow. The bending is prone to occur when this arrest of development takes place. Both physiologists and pathologists have been unable to say exactly from what cause it arises. All agree that it is due to some early affection of the spinal marrow. Club-foot follows from the same source in all probability.

The child fell from the bed a few days since, and broke the right femur; the leg is quite tender, and a distinct crepitus can be obtained, which is not like that we obtain from fractures in the adult, but is of a click-like nature. This may be owing to its being a transverse fracture. The fracture is complete, and not due to the apparatus that Dr. Lynch has been using, but to the fall which the child has sustained. Dr. Lynch stated, that he had been employing gutta percha splints, but that he had not succeeded in straightening the legs very much. Dr. H. said, that the fragments would unite in five or six days, but that the splints must be abandoned, as it would be impossible to straighten the legs now. Dr. Ackley of Cleveland had a case of this kind in which he broke the leg twice, but was unsuccessful; Dr. H. then had charge of the child, but did not succeed in his endeavors to straighten the limb. The splints, he said, might be used to keep the leg in its present

position, but for no other purpose, as it was out of the question to attempt to straighten the limbs now. Sometimes the child outgrows the curvature to a great extent. This one is perfect in every other respect. Another case was mentioned, in which, he said, it appeared as if a cord had been tied around the leg, and had left a depression there. Finally, the leg broke off at this point spontaneously; this was owing to a deficiency of bone in the limb. Those who had not watched the case would have supposed that a cord had been actually tied around the leg, but to him it seemed impossible to conceive how it could have got round tight enough.

American Medical Times.

SATURDAY, JUNE 1, 1861.

A GLANCE AT THE PAST.

THE war of 1812, '13, '14, was by no means destitute of important observations in the science and art of military surgery. We recognise in the names of TROWBRIDGE, WHEATON, HUNT, MANN, LAWSON, LOVELL, WHITRIDGE, surgeons in the army on the Northern frontier, who have left valuable documents, recording their experiences during these campaigns. While we accord to the writings of recent European authorities on military surgery, the largest and most varied experience, combined with the highest degree of scientific knowledge, entitling them to the most unqualified consideration, we cannot forbear glancing at the recorded observations of our own army surgeons, to draw from thence some lessons peculiarly adapted to our present needs.

In the medical organization of the army at that time, the surgeon held no rank or command, whereby his authority should be respected. As a consequence, his advice and counsel were too often entirely ignored, and not unfrequently to the great detriment of the sick. "It was frequently the case during the war," says Dr. Mann, "that commissioned officers, of inferior grades, intruded themselves into the hospitals, without consulting the attending surgeons, and without their knowledge ordered out of the wards the convalescent men; and when detected in such unmilitary conduct, justified themselves by claims of superior rank." The medical officers were thus brought in constant and unhappy collision with their superiors, and many sacrificed their lives "in support of what was falsely called their honor." This lack of authority told most severely in the management of hospitals; the surgeon could exercise but little discretionary power, was often obliged to abandon good hospitals in healthy localities, and transport large numbers of sick, in mid-winter, at a great distance, to quarters less commodious. Finally, he was almost constantly destitute of efficient aids; and not unfrequently all his medical assistants detailed from the regiments, were summarily ordered to attend the army on expeditions, thus leaving the hospital, containing several hundred patients, in the care only of the regular hospital surgeon. Against such inhumanity towards the sick he could only enter a protest.

Another defect was a deficiency of surgeons attached to

the regiments, and to the hospital corps. In many actions there was great suffering on the part of the wounded, owing to the lack of assistants. To remedy this evil the hospital surgeons were sometimes withdrawn from their duties to attend the army, thus leaving the hospitals scantily supplied with medical attendants. The labor devolving upon the medical staff thus often became excessive, and the necessary neglect of the sick entailed great suffering, and added largely to the mortality.

The first of these defects has been remedied by an Act of Congress, so far as to give the surgeon a nominal rank in the line, though the law cannot be said to be carried out in its proper spirit by superior officers. The disposition of such officers to subordinate the medical department, seems inherent in military organizations. The English and French surgeons have labored for years to place their department in an independent position, but with poor success; and yet the history of every campaign proclaims in trumpet tones that the appalling sacrifice of human life, in camp and hospital, is due entirely to the subordination of the medical department to a higher grade of officers. The experience of the American surgeons in the campaign of 1813, and the English surgeons in the Crimea, in their inability to obtain proper clothing, hospital stores, &c., owing to the routine of official action required, is not unlike. Surgeon LOVELL reported about one-half of the force under his charge as disabled on this account from diarrhœa, dysentery, pneumonia, typhus, etc.

May we not hope that our Government will take especial care to place the medical department of the army during the present war on the most independent basis, giving to its highest officers plenary power in the location and management of hospitals, hospital stores, and the hygiene of camps?

The second defect, viz. a deficiency in the number of surgeons composing the medical staff of the army, is not less vital to the best interest of the troops. The importance of an increase of the surgeons of regiments has been already noticed in our columns. We trust this evil will also be remedied.

In the war of 1812, two kinds of hospitals were established: 1. General hospitals, to which were assigned a medical staff, distinct from that immediately attached to the line of the army. 2. Flying hospitals, attached to the army during active operations, and subject to repeated removals in the campaign. In the organization of the hospital staff by the Government, but little care seems to have been taken to give it efficiency. The hospital surgeon was without any definite rules to guide him. The hospital staff, as already stated, was altogether insufficient in numbers, necessitating the detail of assistants from the army. In this selection care seems to have been taken by the officers to detail persons known to be obstinate and ungovernable, and on whom no dependence could be placed. So incompetent did these persons prove to be, that they were soon dismissed, and the hospital surgeons afterwards selected convalescent patients for assistants. Finally, the Inspectors were not medical men, and often gave the most absurd directions as to the management of the hospitals.

The reform required in the organization of the hospital staff was suggested by the surgeons at the time, but no action was taken, we believe, by Government. 1. The hospital staff should be enlisted *solely for that employment*, with a full corps of qualified attendants. 2. The duties of

the staff, and its rules and regulations, should be well defined, and no officer, except of the highest grade, have power to interfere with or control their actions. 3. The Inspector should be a medical man, or a surgeon should be associated with him in his visits to the hospitals.

In the location of General Hospitals, Surgeon Mann, whose experience was very great, gives the following advice: "A cultivated country, where milk could be procured, as well as vegetables, is preferable to towns, or thickly settled villages; select points which least interfere with extensive military movements of an enemy, and the opposing army, on elevated lands which command free circulation of air, an abundance of good water, in the open country, remote from woods and marshes; the building should be but one story in height, to avoid the noise of persons walking on a second floor; the wards should have an east and west exposure, be of ample dimensions, especially in height, have free ventilation by means of sliding sash and chimneys; a separate bed for each patient in a movable bunk, not attached to the walls; and finally an abundance of spare clothing for new patients, who are often admitted, after engagements, entirely destitute."

The best conducted hospital was at Burlington, Vt. It was located sixty feet above the water, on a soil dry and hard at all seasons, being sand and gravel. Though often containing from six to nine hundred patients, it never generated an infectious disease. Cleanliness and good ventilation were the main features in its management; the walls were washed in summer with soap and water or lime water, and whitewashed in winter; the floors were daily sanded; the straw of the beds was burnt when the beds were vacated; close-stools, urinals, and bed pans were removed as soon as used; no culinary process was allowed in the wards; personal cleanliness by means of baths was strongly insisted upon; the beds were always in good condition, being immediately put in order if the patients left them but for a few minutes. We cannot give too much credit to the intelligence and zeal of the surgeons who, a half century ago, administered the affairs of a military hospital with so much wisdom and discretion. During the campaign of 1814, there was a manifest improvement in all the general hospitals. For one of the summer months of that year there was not a death reported in a mean strength of six thousand men.

For flying, or field hospitals, large tents, each sufficient to accommodate sixteen or eighteen patients, were preferred to buildings, from the first of June to the last of September. The location preferred was a dry or gravelly soil; drains were cut to carry off surface water; covered cess-pools were prepared at a proper distance; the floors were daily scrubbed, and the tents were removed to new and eligible grounds every two weeks. So rigidly were these rules enforced, that at many of the hospitals no new diseases supervened. This was true of the flying hospitals at Lewiston, with an average monthly report of over six hundred men. The cooking was done at temporary kitchens, made with stones or sods of earth, in the form of a fireplace, and inclosed with boughs and the bark of trees as a protection from sun and rain. Large barns were also found to make excellent flying hospitals in the summer. SURGEON MANN says:—"The sick and wounded, here, were as comfortably lodged as they would have been in a dwelling-house; and much less incommoded by the heat of the weather, which was very oppressive, at times, during July

and August. Through the spacious and lofty rooms, by means of large double doors on each side of the barns, a free circulation of air was admitted, which was not only grateful but salubrious."

We shall recur again to these interesting and now highly valuable records.

THE WEEK.

THERE seems to be almost universal complaint among the volunteers, of the poor fare with which they are furnished at their encampments. It is not surprising that this should be the case in New York city, where jobbing business is well understood, but we were not prepared to learn that the same shameful system is carried on at Elmira, N. Y. An intelligent volunteer thus speaks of their treatment:

"The contractor merely furnishes the rations; government furnishes table, dishes, etc., and each company details men to serve the food, wash the dishes, etc. You perceive that the contractor makes money, while the soldiers who have so nobly responded to the calls of their country fare rather hard. For myself, I had rather meet the terrors of the battle-field, than be compelled to live on the rations and fare now dealt out to us, for any considerable length of time. Were the government unable to provide better for us, I, for one, could endure the present and even worse rations; but when such liberal sums are paid to supply our wants, it is difficult to be patient, and not complain of ill treatment."

Our authorities cannot be fully impressed with the disastrous effects of poor diet upon the future health of the troops. It is the common remark of military surgeons, that the sudden change of diet which the volunteer has to submit to, is the foundation of many of the diseases of the camp. It is discreditable that, at an interior town so largely supplied with eatables from a rich farming district, as Elmira, the volunteer should be heard uttering such a pitious complaint as that copied above. We are happy to know, from personal observation, that the vast bodies of troops now encamped at and near Washington are supplied with rations that are excellent in quality and ample in quantity. The bread, which is at present being turned out in vast quantities daily from the great ovens in the basement of the Capitol, is equal to the very best of our New York bakeries.

MORTON and his patented *letheon* seem to stand in the way of honest medical inquiry concerning the fatal effects of anæsthetics. Threatened on the one hand with legal prosecutions for using ether, and on the other hand being nervously anxious not to be again entrapped into an endorsement of the greatest of modern charlatans and imposters, we are not surprised that the Chairman of the Boston Committee finds it necessary to promulgate the following notice and assurance. The practical importance of Dr. HODGES' inquiries should elicit faithful replies to his circular.

Boston, May, 1861.

The undersigned, Chairman of the Committee appointed by the Medical Improvement Society of this city, to investigate alleged deaths from the inhalation of sulphuric ether, desires to assure the profession that the investigations of that Committee are not of a partisan character, and have no relation whatsoever with the so-called "ether controversy." As an impression exists at a distance from here that the circulars which have been so largely distributed by them have some connexion, either antagonistic or friendly, with

the measures at present being taken in favor of Dr. W. T. G. Morton, this denial will, it is hoped, suffice to convince those gentlemen to whom they have been addressed, that no ulterior motive is concealed, and that no use, other than that stated in the circular, viz. to prove or disprove the absolute safety of inhaling pure sulphuric ether, will be made of their replies.

R. M. HODGES, M.D.

THE instructive experience of our old Army Surgeons, as recalled by the present stirring events, is well illustrated in the columns of this number of our journal. Such noble types of medical men as Drs. TROWBRIDGE and PITCHER are not to be forgotten in times like these, when medical genius joined to patriotic devotion, is not less serviceable than military skill and heroism. We desire to hear often from the distinguished survivors of the medical service in former wars, as well as from our brethren now in the field. The vigorous old age of old soldiers is one of the redeeming results of camp life. The venerable Dr. PITCHER of Detroit happily illustrates the value of such a life—the fruits of a faithful professional and public life. We cannot forbear making a brief quotation from a letter from that honored physician, as exemplifying the value of an active professional life.

"By way of excuse for having been so tardy, allow me to give you an idea of the manner in which my time is taken up. I retain a pretty extensive private practice, allowing the poor to receive their share of my attention. Every day I spend from one to two hours in St. Mary's Hospital, and have the supervision of an insane retreat connected with it, but a mile out of town; this I visit only once a week or so. Am a Trustee of the State Asylum for the Insane, which I visit once a quarter, the correspondence with which takes up more of my time; am physician of St. Luke's Hospital, yet only in embryo, and have for the past four years given strict daily attention to the U. S. Marine Hospital, until relieved some time in April from the execution of the latter trust by the present administrators of our national affairs."

For our own part we cannot too highly esteem such noble men, and the affluent rehearsals of their varied and large experience.

Reviews.

A PRACTICAL TREATISE ON THE ÆTIOLOGY, PATHOLOGY, AND TREATMENT OF THE CONGENITAL MALFORMATIONS OF THE RECTUM AND ANUS. By WILLIAM BODENHAMER, M.D. New York: S. S. & W. Wood. 1859. pp. 368.

Dr. BODENHAMER commences his work where authors generally close, viz. with the illustrations, and the order of subjects continues reversed throughout the book. This is a most inconvenient arrangement, and embarrasses the reader who may have occasion to consult it in haste. With this criticism we are prepared to award to the author full credit for having prepared a useful and practical work on a subject hitherto but little understood.

We entirely agree with the author in the opinion that these malformations are much more common than is generally supposed. The truth is, they are too generally overlooked; unless the malformation consists in a perceptible external closure the practitioner is very liable to disregard the obstruction and the child falls a victim to ignorance and neglect. We are also constrained to take the same hopeful view of these cases as our author. Not that they are in general curable, but with a correct understanding of their

nature, and an intelligent use of the means now available for their relief, a far greater number may be cured than is generally admitted. So unpromising have these cases been considered by some of the most eminent surgeons that they have refused to attempt their relief in the simplest form of malformation. But no surgeon fully competent to undertake the charge of these cases would to-day abandon the little sufferer to its fate without a thorough trial of the means which scientific surgery has placed within his power.

In regard to the ætiology of these affections the author inclines to attach some importance to the imagination of the mother acting upon the foetus. Serres, Geoffroy Saint Hilaire, and Roux de Brignolles, attribute these malformations to deviations, imperfections, or absence of the hemorrhoidal arteries, while Tiedemann asserts that the defect originates in imperfections of the nervous system. The true cause of these malformations has, however, as yet, escaped detection, except where actual disease exists, and all the explanations advanced are conjectural.

Dr. Bodenhamer divides these malformations into nine species, as follows:—

"FIRST SPECIES.—This species consists of a preternatural narrowing of the anus at its margin, and occasionally extending a short distance above this point.

"SECOND SPECIES.—In this species there is a complete occlusion of the anal aperture by a simple membrane; or by the common integument, or a substance analogous to it, more or less thick and hard.

"THIRD SPECIES.—In this species there is no anus whatever, the rectum being partially deficient and terminating in a cul-de-sac at a greater or less distance above its natural outlet, without any communication whatever, either externally or internally.

"FOURTH SPECIES.—The anus in this species is normal, but the rectum at variable distances above it, is either deficient, obliterated, or completely obstructed by a membranous septum.

"FIFTH SPECIES.—In this species the rectum terminates externally by an abnormal anus, located in some unnatural situation, as at some point in the sacral region; or the rectum is prolonged in the form of a fistulous sinus and terminates by an abnormal anus, at the glans penis, the labia pudendi, or at different points in the perineum. The natural anus being generally absent, its functions are performed by the abnormal one.

"SIXTH SPECIES.—The rectum in this species opens preternaturally into the bladder, the urethra, or the vagina; or into a cloaca in the perineum with the urethra and the vagina. In these instances the normal anus does not generally exist.

"SEVENTH SPECIES.—In this species the rectum is normal, with the exception that either the ureters, the vagina, or the uterus, open preternaturally into it.

"EIGHTH SPECIES.—In this species the rectum is entirely wanting.

"NINTH SPECIES.—In this species the rectum and the colon are both absent, and there is usually an abnormal anus situated in some extraordinary part of the body."

In treating of these different species, the author gives first a description of the particular malformation, then its treatment, and concludes with a section containing a collection of fully reported cases. This arrangement is admirable, and gives the reader a clear view of the nature of the malformation and the difficulties to be encountered in its treatment.

We cannot follow the author in the discussion of the several species of malformation above given in outline; nor is it necessary. He deals only with facts, and they are so clearly and succinctly stated that the surgeon can properly avail himself of them only by careful study. To the practitioner who desires to be prepared for every emergency we commend this volume as an indispensable addition to his library.

The volume is illustrated by sixteen well executed lithographic plates, which greatly enhance its value.

Obituary.

BIOGRAPHY OF A SURGEON OF THE WAR OF 1812.

AMASA TROWBRIDGE, M.D.

(Continued from page 343.)

WE have stated that a large body of troops were concentrated at Buffalo in the Spring of 1814, and that there were other unmistakable evidences of a determination on the part of our government to cross these forces, which had been thus prepared under the eye of the best drill officers in the service, into Canada, and make some vigorous efforts, either at conquering those provinces, or in "conquering a peace." The army, under Gen. Brown, crossed the Niagara river, at Black Rock, in the night of the 2d of July, and invested Fort Erie on the morning of the 3d, which they carried with ease, with but three men wounded.

On the 5th of July, the battle of Chippeway was fought, involving some of the hardest fighting that had been experienced since the commencement of the war, and resulting in a complete victory, and leaving our forces in possession of the battle field, with all the dead and wounded. There were 132 Americans wounded in this battle, which, together with the care of the enemy's wounded, gave the field surgeons full employment. Many operations were, of necessity, made on the field of battle, and the wounds were all dressed there; after which the patients were sent for future treatment, in boats, to the general hospital at Buffalo.

A still more desperate battle was fought at Bridgewater, or "Lundy's Lane," on the 25th of July. It lasted five hours, and terminated at midnight. Many of the general officers on both sides were wounded. On our side, the killed and wounded amounted to 76 officers, and 625 of the rank and file of the army, while the enemy lost 878 men. Dr. Trowbridge and his mates, assisted by Gen. Ripley's staff officers, effected the removal of all the wounded to Chippeway the same night.

The next morning the Doctor was ordered by Gen. Ripley, who was left in command (the superior officers being all wounded), to collect the badly wounded, and place them in boats, and convey them to the general hospital at Buffalo. This was accomplished by the use of two large provision scows, with a surgeon's guard. He arrived at Tonawanda the same night, with his charge, and in the morning they buried thirteen, who had died during the night. With the balance he arrived at Buffalo the next day. The slightly wounded had been left, in the meantime, with their regiments.

On the 25th, the American army retreated to Fort Erie, and there commenced to fortify itself. The enemy followed, and in three days after opened a constant and heavy fire upon the fort with cannon and heavy mortars, which they continued, day after day, until the 15th of August, when a general assault was made upon the place and works. They were repulsed, however, with great slaughter, which was the more disastrous to them, on account of the explosion of a magazine under the east bastion—killing 300, and wounding 147, with five officers, who were taken prisoners. By a special general order, the wounded of the enemy were assigned to the care of Doctor Trowbridge, and the greater part of them were sent to the general hospital at Buffalo. In reporting this attack and repulse at Fort Erie, General Ripley spoke of the Doctor and his assistants as follows:

August 17th, 1814.

"I close this report with stating to you, in the highest terms of approbation, the skillfulness exhibited by Doctor Trowbridge, surgeon of the 21st regiment of infantry, with his assistants Everett and Allen. Their active, judicious, and humane treatment of the wounded, both of the enemy and our own, together with their steady and constant

attention to the duties of their station, must have attracted your personal observation, and I am confident will receive your approbation.

"I have the honor to be, &c.,

"E. W. RIPLEY, Brig. General 2d Brigade.
"To General Gaines."

The enemy kept up a constant scene of skirmishing, bombarding, and cannonading, which had scarcely an interval of an hour, night or day, until the 17th of September, when a sortie was made from the fort upon their works. The whole of the enemy's works were carried, and rendered useless, and 380 of their number were made prisoners and brought into the fort. The Americans lost 527.

From the above narrative of the continued scenes of carnage which came under the professional observation of the Doctor, it will be seen that he must have had every kind and degree of wounds to treat, made by musket balls, cannon balls, grape and shrapnel shot, fragments of shells, congreve rockets—in fact, all the missiles used in modern warfare. This last feat brought the campaign nearly to a close. The enemy left their encampment in a few days, and retreated across the Chippeway, when the American forces followed, and encamped on the former battle ground.

Colonel Bissell was ordered with a detachment to ascend the Chippeway river about fifteen miles, and destroy some provisions and military stores of the enemy. Dr. Trowbridge was ordered to accompany this expedition in his capacity as a surgeon. On their arrival at the place designated, they were met by the enemy, and a sharp engagement ensued. Several of our party were killed, and nine wounded. The object of the expedition was completely successful—the stores were taken and destroyed, and then the little party returned to the encampment, bringing their wounded with them. Orders were soon after given to the army to return to Fort Erie, and then to recross the Niagara to Black Rock, and take their line of march to Sackett's Harbor.

Thus ended one of the most sanguinary conflicts that had been known in modern history—between our forces under Generals Brown, Scott, Ripley, Porter, and Gaines, and the veteran officers and soldiers of England, who had, under Lord Wellington, successfully fought the memorable battles of the allies against the French in Spain and Portugal.

Dr. Trowbridge came to the Harbor with the army, and was occupied in hospital duties at that place until the news of peace, and the disbanding of the army. He was offered a place and a commission in the new arrangement of our forces—adapting the number of men to a state of peace—but he preferred the exercise of his profession among the people of his former residence in this village, where his family had kept their home during his connexion with the army. Of course he was welcomed back again by his former friends and patrons, and he was soon engaged in extensive country practice, and with a professional reputation second to few practitioners in the State.

Immediately on his return to his private practice, he was appointed one of the assistant justices on the bench of his county, and in 1818 he was appointed a Judge. The duties of these several positions he discharged with credit; and in 1819 he was appointed Sheriff of the county, and discharged the duties of that office for two years. In the meantime, he continued his medical and surgical practice in a very large district of country.

In 1822, he visited Philadelphia, and spent the winter in forming the acquaintance of the most distinguished physicians of that city, and in observing the hospital practice there. Among the physicians of note, whose acquaintance he made, was Dr. Parrish, to whom he became very much attached, and with whom he kept up a correspondence afterwards.

In 1824, he received the appointment of Professor of Surgery and Medical Jurisprudence in the Willoughby University of Lake Erie, in Ohio. This gave new scope to his faculties, in preparing a course of lectures, running on

through eight weeks of each year in their delivery. He kept his residence here, however, and continued his practice during the long intervals between the seasons for lecturing to his class in College, until 1833, when he gave up his ride and practice in this county to his son Amasa, who had by this time acquired a reputation in his profession which was second to no physician in Northern New York, only excepting his father. In this latter year, Dr. Trowbridge removed his family to Painesville, in Ohio, ten miles from the Medical College. At that place he immediately entered with ardor upon the acquisition of a new and enlarged sphere of practice, having Painesville and the College as a base, and the "western reserve" as the field of his newly acquired practice. But the Doctor was destined to an utter blasting of all the high hopes which he had indulged, with reference to the field he had so cheerfully surrendered to his talented son. It was in June, 1841, that Amasa was riding on horseback leisurely down Factory street in the village, when a spirited pair of young horses got frightened near the head of that street, and breaking away from their fastenings, came plunging down the street with a heavy lumber wagon. Amasa was a little deaf, and did not hear the noise of the runaways, until they were nearly upon him, when he made some unavailing efforts to get out of their probable track. But what with the obstinacy of his own horse, who seemed bent on having his own way just at that critical moment, and taking his own time to do it in (though he was a horse of immense power and physical capacity), the frightened runaways took him in their course. The collision was a terribly severe one, and resulted in throwing the Doctor to the pavement with such force as to break his skull, and also to dislocate the vertebrae of the neck. Medical help was obtained in a few minutes' time, and an examination followed, which revealed the fatal nature of his injuries, leaving nothing to hope from an attempt to raise the shattered skull from the brain. He lived but a few hours.

The Medical Society of the county had a meeting shortly after, when the following resolutions were passed, and placed on record, viz.:

Resolved, That whereas, this Society, since its annual meeting, through the dispensation of a wise and inscrutable Providence, has been called to mourn the appalling, painful, and premature death of one of its most useful members, viz. Dr. Amasa Trowbridge, Jr., of this village; therefore,

Resolved, That this Society deeply sympathize with the distinguished father, family, and friends of the deceased, the medical profession generally, and the public at large, in this afflictive bereavement.

Resolved, That this Society has learned with unfeigned satisfaction, that the father of the deceased contemplates to return to this county, the seat of his former usefulness, to spend the remainder of his useful life; and that this Society greet him with a hearty welcome to his former place of residence, to impart the blessings of his skill and the wisdom of his counsels.

The subject of our notice was at his new home in Painesville, at the time of the calamity above alluded to, and it was a coincidence worthy of being repeated that, as nearly as could be calculated, at the precise moment when his son Amasa was struck down here in death, the marriage of his daughter Frances was being solemnized at his house in Painesville. He had accompanied the bridal party of his daughter to Buffalo, and then leaving them to visit the Falls, he came on to Oswego, where he met the tidings which awaited him from this place.

The Doctor decided at once to resume his field of practice again, which he effected after the termination of the next course of lectures. He had disposed of his old residence on Arsenal street, where he had lived so long, and where he had manifested so much correct and refined taste and skill in arranging his building, grounds, &c., &c., as to make it the admiration of strangers, and the envy of friends.

After his return with his family from Ohio, he purchased the lot adjoining the clerk's office, south side, where he fitted up a cozy little tenement, and where he continued to reside until the great fire of 1849, which consumed his house and all its contents. This was a disastrous fire to the Doctor, for, while he had not a farthing of insurance, he lost his house, furniture, books, surgical instruments, and a large cabinet of prepared birds, &c., &c. But though he had lost his home, and the accumulated stock in trade of his business office, with its invaluable et-ceteras, yet he did not

lose his courage, and having a capital constitution still left, he kept on with his ordinary extensive practice till his death, which occurred in the winter of 1859-60.

It would be a pleasure to me to be able to revise the medical portion of his history, and show the number and character of the surgical operations which he has been called upon to perform—of every character and grade—for which there is abundant material among his papers, but my ignorance of the anatomy of the human frame, and of the terms by which medical men treat of the whole science of medical jurisprudence, prevents my making any effort in that direction. Yet I may say, that in his private practice alone—separate entirely from the army practice, which I have narrated in general terms, without any effort at detail—he has taken off the leg at the thigh ninety-six times, with most happy results in a very large majority of the cases.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, April 10, 1861.

DR. A. C. POST, PRESIDENT, IN THE CHAIR.

DR. D. S. CONANT presented a portion of the vertebral column, removed from a large stout man, aged 55, who, while at work on shipboard, in Freeport, Maine, sustained an injury in the following manner: On a certain Monday there came up a high wind, which blew him off the rigging, and after having struck in his descent and turned over, he finally landed on the ground, striking heavily upon his shoulders, the body being at the same time thrown forwards, so as to impinge its whole weight upon the bodies of the vertebrae. When taken up by his comrades, he was found completely paralysed in both his lower extremities. Two physicians were immediately called, who pronounced it a dislocation of the lower dorsal or upper lumbar vertebrae. Three days after, Dr. Conant was called in consultation, and found the patient with complete loss of sensibility and motion below a certain well defined line around the body; there was also noticed a posterior and angular deformity in the neighborhood of the twelfth dorsal vertebra, which caused Dr. C. to come to the conclusion that the body of that vertebra had been crushed, and that some laminae of bone had impinged upon the spinal cord. The patient went on very well until the Saturday following the injury, the mind remaining perfectly clear. On Sunday morning the physician noticed a large blister, extending nearly the whole length of the inside of each thigh, that was unconnected with any previous local irritation. At four o'clock he was taken with a very severe chill, the mind till then remaining clear. He soon after became delirious, and quietly died without any convulsions, at seven o'clock the same evening. On Monday, a week after the reception of the injury, a post-mortem examination was made. All the internal organs were healthy. There was a considerable quantity of extravasated blood on either side of the spinal column, in the situation of the last rib. A portion of the spinal column was removed, extending between the seventh or eighth dorsal to the third or fourth lumbar, together with the angles of the respective ribs. On subsequent careful dissection, the body of the twelfth dorsal vertebra was found crushed, and a little process of bone which had been thrown out from the lamina of the first lumbar vertebra had entirely cut off the spinal cord. The blisters on the inner side of the thigh were proved to be the result of mortification. The points of interest about the case were—1. The manner in which the injury had been received. 2. The little disturbance of the pulse, notwithstanding mortification was going on in the lower extremities; this fact of the regularity of the pulse seemed to show that the circulation

was still going on in the lower extremities, but that the assimilative process was destroyed in consequence, as was supposed, of injury to the sympathetic ganglia situated at the angles of the two last ribs. 3. There was no disturbance of the mind until the last few hours of life.

FIBRO-CYSTIC ENCEPHALOID DEGENERATION OF AN UNDESCENDED TESTICLE AND BLADDER.

DR. D. S. CONANT then presented a daguerreotype of an inguinal tumor, also one of the patient after recovery from its removal, with a diagram of the tumor and of its microscopical characteristics, with the following history:—Andrew C. Smith, aged 18 years, presented himself (Wednesday, Feb. 20, 1861) before the medical class in the Maine Medical School, with a large tumor, occupying the whole of the left iliac region, down as far as the pubes. It was of ovoid form, its long axis being nearly parallel with Poupart's ligament. It was covered with healthy skin, through which appeared numerous large veins. It measured in its long diameter seven inches, in its transverse diameter five inches, and projected from the abdominal surface about four inches. Palpation discovered both fluctuation and solidity. At the upper rounded extremity, anteriorly and posteriorly, fluid was unmistakably present; the base and body had a firm, resisting, obscurely lobulated, and evidently solid feel; while at the lower, smaller extremity, the fingers, passing deeply behind the tumor, distinguished the superior margin of the external abdominal ring, and appreciated still deeper the sensation of a sort of neck. The scrotum was occupied by only one testicle. The history of the case, as ascertained at the first examination, and elicited by subsequent inquiry, is as follows. The boy had always enjoyed robust health. His parents and all his family have been altogether free from any scrofulous or cancerous taint. The patient says that, as long as he can remember, he has had but one testicle visible; but his father is very confident that, when his son was seven years old, his scrotum contained two testicles. In the early spring of 1858 (just three years ago), having then no lump or swelling in the inguinal region or elsewhere, he received what he called a kick from a playmate, who took him by the shoulder, and dashed his knee forcibly into Smith's groin. The blow caused intense pain, of that sickening character that follows compression of the healthy testis. Smith became faint, reeled, and had to sit down. The pain continued severe for that and the following day, then gradually ceased; but with its diminution there commenced a swelling in the place of injury, which continued—how long exactly he does not remember, but until a tumor had formed as large as a hen's egg. This remained stationary in size for two years; its other symptoms being entirely negative. In March, 1860, he took a very long walk, and soon after was attacked with violent pains in the tumor, followed by an immediate increase of size. He remained in his room one day, and applied some domestic stimulant locally, and the next day, the pain and stiffness subsiding, went to work in the factory as usual. But the tumor continued to increase, its growth being gradual and painless. The patient did nothing for it, and his parents were ignorant of its existence. In September, 1860, he mentioned its presence to a physician at W—, who, without examining it, told him he was "busted," and ordered a snake truss, which was actually worn for some weeks. In November, the father became aware of the tumor's existence, and consulted Dr. Ellis and Drs. Lincoln, father and son, none of whom advised any treatment. In the same month, a physician of a neighboring town applied three blisters, with the effect of a rapid increase in size, and the development, apparently, of a solid growth in the midst of what had previously been a uniformly fluctuating tumor. During all this time the patient's health had not suffered, and he had been capable of active and continued exercise; even on the day that Dr. Conant saw him he had been skating for several hours.

Dr. C., after making some remarks to the class, excluding from the diagnosis enterocele, abscess, and "hydrocele of an

undescended testis" (which it had been pronounced to be), contracted his diagnosis to one of two possible things—degeneration of the contents of an omentoecele, or fibrocystic degeneration of a retained testis, most probably the latter. He then introduced an exploring trocar into the superior fluctuating part and drew off nearly a pint of yellowish serum. This changed the form but did not materially diminish the size of the mass. The rounded end collapsed, and the solid portion was then brought into strong relief, its upper edge projecting sharply under the skin. Dr. C. announced that the only treatment worth attempting was removal, and appointed the following Saturday for the operation.

Operation—After the boy had been, with great difficulty, brought under anæsthetic influence, Dr. C. made an elliptical incision nearly nine inches in extent in the direction of the long axis of the tumor. Dissecting off the flaps on either side he laid bare the body of the tumor, and enucleated it as completely as possible.

After gaining more room for manipulation by opening one large and several smaller cysts, he found the neck to consist of a diverticulum or prolongation from the bladder, which either projected up through the external ring in the healthy condition of the parts, or was drawn up into this situation by the enlargement of the testicle during the progress of the disease. This complication had been mentioned to the class as of possible existence, but had not been certainly expected, and although it rendered the prognosis much more grave, did not, in Dr. C.'s opinion, modify the step of the operation. Accordingly, after ligaturing the neck of the tumor, he applied the *craseur*, and with great readiness removed the whole mass of disease. There was no hemorrhage after the separation, but a gush of urine followed pressure on the hypogastrium. The superficial epigastric and the spermatic arteries required ligature, other vessels bleeding were controlled by torsion. The opening into the bladder was united by continuous suture, and the integumental wound was closed by seven or eight points of interrupted suture. A flexible catheter was introduced into the bladder, and the boy was put to bed. The operation, from the first incision to the introduction of the last suture, occupied about twenty-five minutes.

Progress of the Case.—Saturday, four hours after the operation.—The patient recovered well from the effects of the ether, rallied completely from the shock of the operation, and felt no pain. Pulse 96. Saturday, 10 P.M.—Condition same; the urine that had been drawn off presented hardly a tinge of blood. Sunday, A.M.—Pulse 100. Condition otherwise unchanged. Sunday, P.M.—Pulse 102. A slight tenderness and puffiness about the wound.

Monday P.M.—Pulse 128, but not sharp or hard. A slight diarrhoea which had existed up to the period of the operation had given place to constipation, which Dr. C. considered might be the cause of the excitement of pulse, and now used some gentle means to relieve. No signs of urinous infiltration. Tuesday, P.M.—Pulse 138, and yet no symptoms of peritonitis. A bloody or sanious discharge which had heretofore been slight now increased in profuseness. Still no sign of infiltration of urine. Bowels not moved. Wednesday, A.M.—Pulse fallen to 128. Large doses of castor oil had been effective in producing evacuations during the night. Wednesday, P.M.—Pulse 120. The wound looked well, though there appeared little probability of obtaining union by first intention. He was now able to pass his urine without a catheter, and as he suffered very much from the presence of the instrument, and especially from its introduction, he was permitted to go without it. From this time he continued to improve, his pulse falling to 90, and remaining regular; his general health good; the wound healing very kindly; the ligatures all coming away before the eighth day. He was soon able to sit up, then to move about on crutches, and finally, to appear again before the class on Monday, April 1st, thirty-six days after the operation. The wound was nearly closed, his health was good, and he looked better than he did before the operation; the

whole progress of the case having been in every respect satisfactory.

Appearance of the Tumor after Removal.—When all the cysts, to the number of seven or eight, had been opened and their contents discharged, the mass still preserved its ovoid form, and weighed about three pounds. On being laid open longitudinally, the appearance was that of two kinds of tissue; one cortical, and the other central or medullary. The cortical was about one-half inch or one inch thick, and invested the whole tumor. It seemed to be of fibrous structure, and on being examined under the microscope presented an aggregation of rather large fibres, interspersed with small round non-nucleated cells and granular matter. The central or medullary portion was soft, almost pultaceous in some places, and of a yellowish red color very much diversified by darker irregular streaks. At the smaller end, corresponding to the supposed portion of the testicle, there was a distinct oval demarkation, about two inches in long diameter, and of a lighter color and softer consistence than the rest of the central portion. The microscope proved the softest portion of this oval to consist of nucleated cells, some candate, others round, and of every irregularity of shape, mingled with fine granular matter and pigment cells, the whole evidencing plainly enough the malignant nature of the disease.

Correspondence.

DOMESTIC CORRESPONDENCE.

MILITARY SURGEON'S OUTFIT.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I take advantage of the departure of a mail for New York this afternoon to write to you respecting medical matters at this station. I am, in fact, glad of the opportunity to make known a few facts relative to the medical outfits and requirements of the newly formed regiments through such a medium as your well established journal. In the first place, a word or two in regard to the outfit of the regiments that have been hurried on to the South under the first requisition. The first regiments from New England, as it is well known, left at short notice; some at twenty-four hours; and it could not be expected that their outfit should be anything but incomplete. The later regiments, from Massachusetts and that from Vermont, had more time, and were more deliberate in their movements—the 1st Vermont regiment being in camp a week at Rutland, before moving. But in this instance, as I suppose was the case in others, the notice to the surgeon of his appointment, and his responsibility for the medical outfit, came only when the troops were ordered to rendezvous and prepare for immediate departure. Instruments are readily procured, but to procure and pack a judicious selection of medicines for a thousand men in the field requires time. A little experience will, also, be useful in the way of correcting deficiencies. I submit my own short experience, in part, for the benefit of my professional friends who may be coming after me.

In view of the short time at my disposal, and my constant occupation in personal preparations for departure, I ordered the outfit prepared for the Massachusetts regiment, under the direction of the Medical Commission appointed by the government for that duty. The chests were promptly at hand, and in weight, size, and general appearance, were imposing. At the first surgeon's call in camp, about twenty sick reported, in which coughs and colds, sprains, and excoriations, and gonorrhœa (alas!) were pretty equally distributed. I found, on examination of those ponderous and expensive chests, that there were absolutely no means of

making ordinary volatile liniment, or any other embrocation; not a single expectorant, nor any provision for making a cough mixture; and the same was true of gonorrhœa; no cubebs, no spts. of nitre, no lavender, or other aromatic mask for the transitory penalty of social indiscretion.

The delicacy of the compliment to the chastity of the Green Mountain Boys, implied in the last omission, I profoundly appreciate and acknowledge. But I would respectfully suggest to the Medical Commission that some of the above articles would be of more service to the regiment than the large shopware jars of bromide of potass and other useless chemicals that encumber the chest. Surgeons fitting themselves out for this service will save infinite trouble by filling large one—two—three—and four gallon tin cases of cough mixture, gonorrhœa mixture, liniment, etc., after their own prescriptions; and also providing for their replenishment. The more concentrated and nicer preparations can always be procured from the medical stores of a large military depôt like this; but at present, of course, there is no provision for the extraordinary demand made by the reinforcements (for more bulky articles). Constipation, and disease from irregular diet, are the great complaints among recruits. The sugar-coated pills of Tilden & Thayer, are great conveniences, and I regret my store is not larger.

Changes of bed clothing, shirts, towels, etc., for Hospital use, should be brought in place of lint and bandages. The things should be fairly marked *Hospital* or *Dispensary*, with the style of the regiment to which they belong.

I have fifteen men now in the hospital, all looking tidy and comfortable, in clean white sheets, pillow-cases, and night-gowns—the thoughtful gift of the ladies of Burlington, Vt., who I know will be delighted to know the comfort they are by this simple means conferring on the sick soldier. Lint, bandages, &c., may come into use; but as yet I have not had occasion to use five yards of bandage, of which my supply is large.

In regard to deficiencies of the medical chests from Massachusetts, my remarks are not intended to censure the gentlemen under whose direction they claim to have been prepared, whose omissions, if their directions were honestly followed, were due to the haste in which they were given. I may add, that I am supported in my statements by the surgeons of the Massachusetts regiment stationed here, Dr. S. Laville and Holmes; their supplies being inferior to mine by just the articles I have named, and which I added before leaving. I wish, before closing, to express my gratitude to the Hospital Relief Association, N. Y., for the valuable contributions made to our hospital stores. The hospital lanterns and knapsack are especially useful. With regard to the health of the Vermont regiment, I can say that it is now improving daily. They were unfortunate in their weather for their first experience in camp life, in Vt. It was cold and stormy, and many took colds which they have not yet got rid of. We were also unfortunate enough to have a case of measles, which contaminated one company, so that I had eight cases in hospital at one time here. One man, a private, after apparent convalescence, relapsed, into a typhoid condition and died yesterday. Pneumonia and diarrhœa are the main diseases now. In consequence of our contagious disease, our friends here in the profession rather give us the cold shoulder, which, on the whole, has resulted in our benefit, by giving us a separate hospital establishment under my exclusive control. The fort-surgeon is Dr. Cuyler, of long service in the army, evidently of fine professional attainments, and whose many attentions I gladly acknowledge. We hear to-day that large reinforcements are to be immediately added to this post; in fact, a portion of Gen. Butler's command is landing, as I close. Gen. B., I have been informed by Col. Dimmick, will arrive to-morrow morning. The force now here is 2,300.

Yours, etc.

E. K. SANBORN,
1st Regiment Vermont Volunteers.

FORT MONROE, May 21st, 1861.

COMPENSATIONS FOR MEDICO-LEGAL INVESTIGATIONS.

[To the Editor of the AMERICAN MEDICAL TIMES.]

DEAR SIR:—I beg leave to inquire through the columns of your journal if the Legislature of the State of Ohio at its late session did not pass a law entirely changing the mode of compensation to physicians for services in medico-legal investigations.

I ask, because the subject has not been alluded to by any medical journal published in the state, and as you have many subscribers in it, the question may meet the eye of some one who can answer it.

I believe the former law gave the power to the Courts of Common Pleas to fix the amount a physician should receive for post-mortem examinations or other similar services, and was, so far as I know, satisfactory to the profession.

Yours, etc.,

BUCKEYE.

We believe an important change in that matter was made by the last Legislature of Ohio, but not being able to state specifically the nature of that change, we will be greatly obliged to any correspondent for a concise statement of the facts respecting that new legislation and its effects.—[E.D.]

CONNECTICUT STATE MEDICAL SOCIETY.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—The Sixty-ninth Annual Meeting of this Society was held at New Haven, May 22-23, in the Hall of the Medical College. Seventy Fellows and Honorary members were in attendance. The President, Dr. Ashbel Woodward, of Franklin, New London county, delivered the Annual Address; Subject: *Life*. After which the Society proceeded to the election of officers for the ensuing year. Dr. Josiah G. Beckwith, of Litchfield, was chosen President; Dr. T. C. Brinsmade, of Troy, New York, late President of the New York State Medical Society, was then presented to the Society, as were also, Drs. Jared Linsley, H. D. Bulkley, and J. G. Adams, Delegates from the New York Academy of Medicine. A most cordial welcome was tendered to these gentlemen by Dr. B. H. Catlin, and it was voted that they be entertained as guests of the Society. Dr. Hiram Corlies, Delegate from the New York State Medical Society, presented himself at the afternoon meeting. Reports from the various Standing Committees were presented, and accepted; and on motion, an advisory Medical Board was recommended to the Governor, to aid in the examination of candidates for the office of Surgeons and Surgeons' Mates, for the Regiments of Volunteers. Drs. Jewett, Russell, Hubbard, Woodward, Williams, Beckwith, Baker, and Sumner, were recommended as such Board.

A highly interesting memoir of the late Dr. William Tully was read by Dr. Henry Bronson, and a Dissertation on "Hereditary Predisposition," by Dr. John B. Lewis, of Rockville, Ct. Both of these papers were ordered for publication, and a special vote of thanks awarded to their authors. By invitation of the New Haven City Association, the Society was most hospitably entertained at a supper in the Tontine Hotel on the 23d. After the transaction of miscellaneous business, the Society adjourned to meet at Bridgeport, on the fourth Monday in May, 1862.

Yours, etc.,

BRIDGEPORT.

Medical News.

APPOINTMENTS.

WM. O'MEAGHER, M.D., Physician to N. Y. Dispensary.
DR. RALPH N. ISHAM, Prof. of Surgical Anat. and Operations of Surgery in Lind University, has been appointed Surgeon of the Marine Hospital at Chicago.

ARMY AND NAVY INTELLIGENCE.

MICHIGAN.—The Commission appointed by the Legislature of Michigan to examine candidates for the posts of Surgeons and Surgeons' Mates to the Volunteer Regiments of the State, reports the following names of successful gentlemen:—

Surgeons.—Drs. David Prince, of Jacksonville; Horace Wardner, of Chicago; Henry W. Davis, of Paris; S. T. Trowbridge, of Decatur; A. W. Heise, of Joliet; James H. Paris, of Danville; Christopher Goodbrake, of Clinton; Sanford Bell, of Springfield; and Dr. Evarts, of Quincy.

Assistants.—Drs. D. W. Young, of Aurora; Samuel C. Plummer, of Rock Island; A. E. Goodwin, of Rockford; John L. Teed, of Mendota; B. F. Stephenson, of Petersburg; John M. Phipps, of Charleston; Wm. F. Cady, of Rock Island; Charles Davis, of Alton; James Hamilton, of Springfield; J. W. Van Valza, of Freeport; P. H. Bailhache, of Springfield; Conrad Dumreicher, of Chicago; Thos. Wilkins, of Vandalia; Daniel Stahl, of Quincy; J. R. Gore, of Chicago; Geo. H. Knapp, of Jerseyville; H. A. Buck, of Marengo; Samuel M. Hamilton, of Monmouth; E. A. Steele, of Chicago; Edgar Winchester, of Elgin; George W. Crossley, of Princeton.

NEW YORK.—*Inspecting Surgeon to the Albany Depot*, Mason F. Cogswell, M. D., has been appointed to this position, in place of Dr. A. H. Hoff, who has accepted the place of Surgeon to a regiment. *Onondaga Regiment*—Surgeon L. M. Pease, of Syracuse; Surgeon's Mate, Geo. B. Todd, of Fayetteville. *Oneida Regiment*—Surgeon A. B. Shipman; Surgeon's Mate, J. C. Stuart. *Seventh Volunteer Regiment*—Surgeon Isenlord; Assistant Surgeon—Jacek. *Sixty-Ninth Regiment*, Detachment; Surgeon Philip O'Hanlon. *First Regiment Volunteers*—J. Lawrence Hicks, Surgeon; John Howe, Assistant. *Brooklyn Phalanx*—Surgeon, F. E. Martindale. *Fifth Reg't Volunteers*—Surgeon, R. K. Gilbert; Assistant, B. E. Martin. *Ninth Regiment Volunteers*—Surgeon, J. W. Fisher. *Scott Life Guard*—Surgeon, E. W. Wainwright; Assistant, G. W. Lovejoy. *Col. Kerrigan's Regiment*—Surgeon S. N. Fisk.

NEW JERSEY.—*First Regiment Volunteers*—Assistant Surgeon Charles C. Gordon. *Second Regiment Volunteers*—Assistant Surgeon, Lewis W. Oakley. *Third Regiment Volunteers*—Assistant Surgeon, Lorenzo L. Cox.

U. S. *Ship St. Louis*.—Surgeon, J. O'Connor Barclay. *Steamer R. R. Cuyler*—Assist. Surgeon, Argyle Watson.

The President has appointed the following surgeons for the navy:—Jacob S. Dungan, Charles F. Faks, Samuel F. Cornes, Edward Shippen, William Lowber, Phineas J. Marwitz, Wm. D. Harrison, Chas. Martin, Francis M. Gurnell, James Shuddard, S. Allen Engles, and Benjamin Freeland.

NEW FRENCH AMBULANCE.—On Monday evening, May 27, a meeting of Surgeons was held at the house of Dr. Garrish, to inspect the latest pattern of an ambulance used by the French army in Algeria, and adopted by the Fifty-fifth Regiment volunteers. This ambulance is an omnibus-shaped vehicle, to be drawn by two or more horses; weighing some twelve hundred pounds, but constructed in such a manner that it may be easily detached, separated in several pieces in the interior, the most important portion easily carried by several men. The interior is, when fully standing, a row of beds, carrying six or eight men with great ease, but when crowded, may be forced to transport three times that number. Each bed is a "field-stretcher," or portable cot, which takes the wounded man from the field, and without any fatiguing change, places him in this portable hospital. An india-rubber bath is also attached. At the conclusion of the exhibition, remarks were made by Dr. A. S. Wolff, Surgeon of the Regiment, and also by Dr. Sayre, on the Duties of the Military Surgeon.

DR. VALENTINE MOTT, at a special meeting of the New York Academy of Medicine, held May 29th, read a very interesting address on the Life and Character of the late Dr. John W. Francis.

Original Lectures.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM,

DELIVERED AT THE UNIVERSITY MEDICAL COLLEGE.

BY

M. GONZALEZ ECHEVERRIA, M.D.,

OF PARIS,

LATE ASSISTANT PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND THE EPILEPTICS OF LONDON, CORRESPONDING MEMBER OF THE ANATOMICAL SOCIETY OF PARIS, FELLOW OF THE MEDICAL SOCIETY OF LONDON, ETC. ETC.

LECTURE V.

GENTLEMEN: Having in my last lecture dwelt at considerable length upon the origin of convulsive diseases, I need not be very long in investigating the causes of epilepsy, which I propose now to consider. The characters of this distressing affection are really identical with those of eclampsia; and you well remember the doubt by me expressed, as to whether both were not the same morbid state capable of existing under different forms. No one, however, should mistake them. Pregnancy, and frequently albuminuria, are essential conditions connected with the productoin of eclampsia, ending either in death or recovery; while the fits are chronic in epilepsy, and if occurring during pregnancy do not have the same fatal influence over the fœtus. In children, when we are not able to remove the cause of convulsions, epilepsy almost always supervenes. It is asserted that epilepsy results from an increased reflex excitability of the spinal cord, especially of the medulla oblongata, where the vaso-motory nerves take their origin. This part of the nervous system may be excited directly or through the brain (emotions); but, whichever may be the way of action, there will always be produced contraction of the bloodvessels, stoppage of the supply of blood in the brain, loss of consciousness, and general convulsions. The hypothesis that epilepsy depends upon cerebral plethora, is fully contradicted by the interesting experiments of Kussmaul and Tenner; who, on repeated occasions, have found that section of the cervical sympathetic and ligature of the jugular veins are followed by protrusion of the eyeballs, slower respiration, paralysis of the glottis, weakness in the legs, without, however, loss of consciousness, and only with slight transient convulsions. The same physicians have, on the contrary, demonstrated that sudden arterial anæmia of the brain, as also faradization of the cervical sympathetic nerves, which determines permanent spasm of the bloodvessels, gives rise to epileptic fits; an observation entirely agreeing with several cases of epilepsy depending upon an obstacle in the cerebral circulation, and with the remarkable one, met with by Dr. Holst of Christiania, alluded to in my previous lecture. Let me not omit, upon this occasion, to repeat what I have already advanced concerning bloodletting in the treatment of convulsive diseases. Kussmaul and Tenner maintain that "*the debilitating method of treating epilepsy, especially by abstracting blood, should almost always be rejected.*" I have said before that Kussmaul has excited convulsions by irritation of the medulla oblongata, after ligature of the carotids, and galvanisation of the sympathetic. Callenfels has likewise discovered that irritation of the one sympathetic influences the bloodvessels only on the one side of the encephalon, thus explaining partial epilepsy, with one side of the body more convulsed than the other. But though irritation of the sympathetic has so great an influence in increasing the reflex faculty of the medulla oblongata, this faculty may also be exalted after peripheral irritation in any motor or sensitive nerve. In other instances the spinal cord itself may be the cause of epilepsy, as proved by Dr. Brown-Séquard; or the cause may be in those parts of the brain containing vaso-motory fibres, as has been pointed out in the preceding lecture. You remember that a peculiarity with these fibres is, that if irritated they persist in bringing about convul-

sions long after cessation of the mechanical irritation; a fact accounting for the liability to epilepsy observed in persons restored to life after their attempting to commit suicide by hanging. Professor Van der Kolk states, that in epilepsy, as he has ascertained in several post-mortem examinations, the medulla oblongata exhibits an abnormal vascularity exalting its excitability in the commencement of the disease, and producing afterwards a hardening from an albuminous exudation, with changes in the nutrition of the organ, resulting finally in fatty degeneration and softening. The same learned physician remarks, that in epileptics who bite their tongue, the vessels are wider in the origin and course of the hypoglossus; while in those who do not bite the tongue, the vessels in the path of the vagus are wider, and in such cases also the patient often dies during a fit. This latter observation has been three times confirmed by Dr. Kroon. It may be, nevertheless, that no manifest alteration is detected on the structure of the medulla oblongata in recent cases of epilepsy, but such a negative result does not contradict the views sustained by experiments and practical observation, that exaggerated excitability of the spinal cord is the proximate cause of epilepsy, neither is such a fact in discordance with those observed by Van der Kolk. Morbid causes do not equally act upon every subject, nor do changes in nutrition take place in an invariable manner. We are all aware of the diversity in the march of accidental products, at times running a long course and being considerably developed without great effects upon the organism; whilst, in other instances, they determine death without giving evidence of considerable change of the structure in the tissue implicated in the morbid process. It should be, however, borne in mind that epilepsy, like other convulsive diseases, causes death very often from suspended action in the respiratory and circulatory organs, which may happen before any change is produced in the structure of the nervous centres.

The paroxysm in epilepsy may be simply reduced to loss of consciousness, or it may present all the symptoms, to wit: unconsciousness, insensibility, and general convulsions. A very important fact, which Dr. Brown-Séquard insists upon with great reason, is the existence of an *aura*, sometimes unfelt or deep-seated, which mostly determines the cause of the attack, even in epilepsy from cerebral or spinal lesion, as has been ascertained by Dr. Brown-Séquard in four cases and in several experiments upon animals. This changeable warning feeling always precedes the fit, starting from a distant organ out of the nervous centres. If you have the opportunity of witnessing the outbreak of the attack, you will always observe at first a paleness of the face due to the contraction of the capillary vessels, and variable spasms of the muscles of the eye with dilatation of the pupil. To the paleness, unconsciousness and insensibility immediately follow; the subject remaining so for a short time, and afterwards regaining his mental faculties. In some cases, however, the memory only is impaired, the other faculties continuing perfect. But such an incomplete fit is only met with during the early state of the disease, and very seldom continues without changing itself into a complete one. Supervening upon the above symptoms, we have congestion of the face with laryngismus and trachealismus, crying, stoppage of breath, irregularity in the movements of the heart, and violent clonic convulsions. The tongue, being always thrust between the teeth, is wounded by their grinding; and the mouth is filled with foam. The convulsive state lasts from five to ten minutes, causing general perspiration; the shaking may be more violent in one side of the body or in one limb, and the paroxysm ceases, leaving the patient in coma or somnolence, and he may also be very much fatigued with headache. The influence of the attack upon the brain is very serious, as its frequency in children generally brings on idiocy; in adults it certainly disturbs the mind, memory may be quite lost, and the disposition of the patient become irritable. The disturbance of mind in periodical epilepsy increases before the time of each fit. In other instances,

partial paralysis is the sequel of the disease; often some of the muscles are contracted; but always during the paroxysm contracted and paralysed muscles participate in the convulsions. It is important to remark, that repeated attacks, though not violent, have greater influence upon the brain than occasional severe ones; and among the symptoms of epilepsy the most fatal to the brain is vertigo, coming on after contraction in the cerebral bloodvessels, which produces anæmia, and lastly changes in nutrition of the brain. For this reason, epileptic vertigo is generally considered more disastrous to the mind than any other form of epilepsy. Dr. Brown-Séquard has discovered, and I have myself several times ascertained, that under such circumstances the spine is tender where the sympathetic issues, therefore pressure at the level of the seventh cervical vertebra determines more or less pain, and may even bring on a fit when often repeated. The tenderness is likewise found in the lumbar region, though not so frequently as in the cervical.

Epilepsy may happen during the sleep of the patient. Trousseau has called attention to a symptom, marked before by Romberg and others, which appears after the paroxysm, and may prove its occurrence. This sign is the existence of little ecchymoses in the eyelids, the forehead, and near the nose. I have observed them in some cases, though not constantly. I consider of greater value the wounds in the tongue and the disturbances of mind after the cessation of regular attacks.

Hereditary predisposition is one of the chief causes of epilepsy, the female sex seeming to be the most liable to it. The earlier age during which idiopathic epilepsy appears, is very important to know in connexion with the diagnosis between it and the syphilitic and symptomatic variety met with in adults. Mental emotions and strong impressions are ordinary causes of epilepsy in women and children. Injuries and diseases of the cranial bones, tumors in the dura-mater, and in those parts of the encephalon containing vaso-motory nerve fibres, may be likewise the origin of the disease; but no peripheral irritations are more common than those starting from the digestive and genito-urinary organs. Anæmia, chlorosis, derangement in menstruation, and diseases of the uterus, easily give rise to epilepsy. I have seen a case of prolapsus uteri attended with severe epilepsy; whenever the womb was not properly supported, violent fits would ensue. The connexions between diseases of the heart and epilepsy are not important; the former being generally attended with congestion of the brain, rather predisposes to paralysis, and only brings on convulsions when cerebral circulation is suddenly suspended. Syphilis is a cause of epilepsy, either producing morbid changes in the structure of the nervous system or without alteration whatever in it, which is frequently met with in adults. Though often no external evidence of syphilis can be detected, yet the convulsive disease is constantly preceded by nervous troubles, usually consisting of neuralgic pains and insomnia. These symptoms do not subside during the intervals of the paroxysms, a peculiarity distinguishing syphilitic from idiopathic epilepsy. If epilepsy is due to a syphilitic tumor of the brain, there will be constant headache, at times exceedingly acute, and a variable degree of paralysis in the limbs.

It is generally thought that epilepsy is not susceptible of successful treatment, unless connected with a cerebral lesion or injury to the cranium, or the spinal canal. We may cure it in its incipient form, and even when it has gone beyond, if we carefully endeavor to ascertain its cause, and perseveringly apply the treatment. Great attention must be devoted to the examination of an epileptic in order to detect if there be any unfelt *aura*. This examination, very much advised by Dr. Brown-Séquard, is of capital importance, as even in cerebral or spinal epilepsy, by preventing the *aura*, we can prevent the fit. Dr. Brown-Séquard applies a powerful electric current with dry conductors on the various parts of the skin of the trunk, at the moment of an expected fit, and by this means brings on the attack and ascertains the seat of the *aura*. A

tight ligature placed on each limb alternately, at the time in which the paroxysm is supposed to take place, will show by cutting it off, whether the unfelt *aura* starts from them. Though the seat of the peripheral irritation is not always discovered, great advantage, however, may be derived from a recourse to such means. The method should be resorted to by every physician. No less necessary is an attentive examination of the spine, very sensitive in case of vertigo, when repeated cauterisations should be tried with a white-heated iron in the lower part of the back of the neck. This procedure generally has a beneficial influence upon the fits. To bring about the same result the insertion of a seton, high up in the neck, is resorted to, and lately revived by Van der Kolk. The treatment in sensitive patients must begin with an issue and change it afterwards for a seton, thereby avoiding unnecessary irritation and preventing not unfrequently an extra attack. This remedy, however, is not so certain. I have seen it carried on perseveringly in several instances without success. Dashing cold water on the face stops the fit, and is the best means to reanimate movements of inspiration and prevent asphyxia. For incomplete fits, I may say that it is one of the best remedies.

Few indeed are the substances not vaunted as specifics for epilepsy; it would be useless and tedious to review them all, and I will only refer to those producing a marked favorable effect. Belladonna is among the least uncertain remedies: it is prescribed in doses of quarter or eighth gr. twice a day, and may be continued in increasing quantities for a long period. I have seen it used by numerous patients with marked improvement. It may also be accompanied with cold douches to the spine, a strict diet, exercise in the open air, and if required, with cauterisation or a seton to the back of the neck. I judge it one of the surest remedies for epilepsy. In long standing cases, in its stead atropine should be employed, as it has more power to diminish the reflex faculty of the spinal cord. It is seldom that the fits disappear shortly after the use of belladonna, as is the case with any other substance employed, and consequently it must always be continued for a long while after the attacks have ceased to recur. Recently the fresh juice of the *cotyledon umbilicus* has been successfully prescribed by English physicians. I have seen it vainly tried on but few epileptics, hence I am unable to express a clear opinion upon its efficacy; however, the results hitherto reported encourage us to try it. With regard to the oxyde and lactate of zinc advocated by Herpin, they are very uncertain; so it is with the sulphate of zinc, the nitrate of silver, hemp, indigo, valerian, etc. In periodical epilepsy full doses of sulphate of quinine have a great influence in diminishing the frequency of the attacks, and even cause the disappearance of the fits.

When an *aura* starts from a limb a tight ligature must be put upon it to prevent the fit. Cauterisation with a hot iron should likewise be made on the very spot of the sensation. I have observed the attacks cut off by this means in a case of epilepsy where *aura* originated from the big toe. In a young lady epileptic since eight months, and having always a burning feeling in the back of the neck for three days before the paroxysm, regularly happening every three weeks, I caused its complete disappearance by cauterising with hot iron the place of the warming sensation, and submitting the patient to the use of gr. x. quinae disulph. taken in the night during the three days preceding the time the fit was expected. Belladonna was also administered in large doses (one grain of the extract daily), and for several weeks. In cases of laryngismus cauterisation of the mucous membrane of the larynx will be useful: it should be effected with a solution of nitrate of silver (arg. nit. 3j. Aq. dest. f 3j.), which you will be sure of applying to the larynx when the probe is suddenly caught by the spasmodic contraction of the glottis. Trephining has been proposed and practised in epilepsy after a blow or injury to the skull: the operation, successful in some cases, has in many others failed to remove the morbid cause or proved

fatal. Therefore, on account of its dangers and uncertainty, the operation, as ordered by Dr. Brown-Séquard and several other physicians, should not be performed until cauterisation and other means applied to the skin of the head shall have been unsuccessful. I need not say that in epilepsy from gastro-intestinal or any other visceral irritation, the treatment should be the most severe. In helminthiasis, anthelmintics must be resorted to. In syphilitic epilepsy iodide of potassium and mercury are the remedies to be employed. In young women it must not be lost sight of that epilepsy may depend upon chlorosis, as such instances are often reported by authors, in which a tonic regimen and steel preparations have produced complete cure. In hysterical epilepsy iodide of potassium internally taken and gr. j. ext. bellad. in a suppository to the vagina will be very beneficial. Electricity should also be very efficient in re-establishing normal menstruation.

The regimen of epileptics must be very rigid; diet must be principally upon meat and food taken in small quantities and at repeated times in the day; the bowels should be kept regularly open, and all the hygienic means resorted to to invigorate the patient, as cold douches, exercise in the open air, etc. It is important to recommend the patient to sleep in a cool and well ventilated room, lying down in bed with the head placed upon a high and hard pillow. A powerful and continuous electric current may be applied to the spine to exhaust the increased excitability of the cord. I know that Dr. Brown-Séquard has prevented the fits by so doing, and I once arrested a paroxysm by directing a very intense induced current to the spine at the very moment of the outbreak of the attack.

Tetanus is characterized by an increased reflex power of the spinal axis, inducing permanent spasms in all or in some of the voluntary muscles. The traumatic element is one of the causes most favoring the affection, which may, however, be of an idiopathic form in *spontaneous tetanus*, or the result of poisoning in *toxic tetanus*. The pathological alterations in the nervous system have been very inconstant, the same as with all other convulsive diseases. It has been advanced that myelitis and meningitis give rise to tetanus, and that inflammation of the medulla oblongata is mostly the cause of the disease in *trismus neonatorum*; but these views and those based upon the occasional existence of softening in the spine are in entire discrepancy with what we actually know concerning the symptoms and mark of those affections. It may be that the congestion determined in the membranes by the asphyxia, which is the usual cause of death in tetanus, has been misunderstood by those who consider this latter due to meningitis. A recent ingenious theory broached by Dr. W. Hanna Thomson, supposes tetanus the result of the action, through the circulation in the nervous system, of a virus or poison, which in its origin and character bears analogies to the virus of hydrophobia and the poison of strychnine. I cannot look into the facts brought in favor of this opinion at any great length, but can we conceive more numerous causes of production, or more capricious incubation of a virus? sudden impression of cold and wet air, injuries, amputations, luxations, parasites in the skin, mental emotions, endemic influences, etc., etc. Certainly strychnia increases directly the spinal reflex power, but this faculty is likewise exalted by several other means, among which I have chiefly mentioned irritation upon vaso-motory and sensitive nerves. We know also that no relation whatever exists between the magnitude of the cause and its effects, often persisting long after cessation of the former; and many are the instances of peripheral irritation producing tetanus, on the removal of which the disease has ceased. No doubt there is a virus in hydrophobia, but this, as advanced by Dr. Brown-Séquard, is almost always due to the irritation of the wounded nerve: convulsions follow an *aura* starting from the wound. Dr. W. Stokes, of Dublin, led by these views, applied a tourniquet on the limb of a patient attacked with hydrophobia, and several times ascertained that so long as the tourniquet was applied there were no convulsions; they, however,

appeared every time it was taken away. On the other hand, hydrophobia may occur without the biting of any rabid animal, as observed by Oppolzer and others, and therefore the facts relied upon to prove that tetanus is the result of the action of a virus are not decisive; neither is the best treatment at present known for the disease more favorable to such hypothesis.

The commencement of tetanus is indicated by a permanent contraction in the masseter muscles, or *trismus*. If the disease is general, all the voluntary muscles are seized with tonic convulsions, and the body remains stretched. When the muscles in the posterior part of the body are only contracted, there will be *opisthotonos*, if those of the anterior part *emprosthotonos*, and if the body is flexed on the one side *pleurosthotonos*. The first is the most frequent of these three states. The symptoms of tetanus are not continuous; there is a remission, and after it increased convulsions, with pain in the affected muscles. In some instances the paroxysms are quite uninterrupted, during which the body is in profuse perspiration, the pulse very frequent or irregular, and the abdominal and thoracic muscles may become so contracted that the water and excrements are evacuated, and breathing suspended; the patient has great anxiety, but the intellectual faculties are not impaired. At the same time permanent dysphagia makes him very thirsty; there is photophobia and considerable hyperæsthesia of the auditory nerve, the least noise brings on a paroxysm. Traumatic tetanus ordinarily happens during the first week after the accident; it is not usual to meet with it immediately after infliction of the wound. Idiopathic tetanus appears suddenly after exposure to cold or wet, or after taking a cold drink, the subject being too much heated or in perspiration. Endemic influences have a great share in the production of tetanus; they are frequent in tropical climates, and in damp and ill ventilated localities near the sea. Cold and wet air is so favorable to traumatic tetanus, that Begin reports that after the battle of Bautzen, the temperature being very low, there were more than a hundred cases of tetanus. Larrey says that the weather being damp and cold after the battle of Dresden, most of the wounded died of tetanus, whilst scarcely an instance of that dreadful accident was met with after the battle of Moscow fought during a suffocating summer day. Dr. A. Berthelrand reports that near thirty cases of tetanus, all fatal, were observed at Brescia, after the last battle of Solferino. He remarks that such accidents exclusively occurred in the churches transformed into hospitals, which, independently of their bad ventilation, were very cool; this latter cause of tetanus being rendered more grave by the habit the wounded had of uncovering their beds to better enjoy the perfidious coolness. At Milan, where it was possible not to use churches as provisory hospitals, tetanus was only met with in five or six men, and one of them was cured. At Turin there were but three instances of tetanus.

In the majority of cases tetanus is fatal, death ensuing from asphyxia by laryngismus or from permanent contractions in the muscles of the throat, and sometimes from exhaustion in the nervous system, after violent repeated attacks. In traumatic tetanus it is absolutely necessary to examine the wound in order to remove the source of irritation, if there is any, or to divide the nerves when imperfectly excised. With regard to amputation, first recommended by Larrey, it is unanimously rejected by all the surgeons, as, instead of inducing recovery, it has in all the cases increased the tetanic accidents. The same results will be obtained with the section of the irritated nerve, which is not so dreadful an operation, though still of doubtful success. The antiphlogistic treatment has never been favorable, notwithstanding the exceptional celebrated cure reported by Lisfranc, of a patient to whom he put 800 leeches, and bled nineteen times in that number of days! In some instances sudorifics have proved beneficial, though generally narcotics are more relied upon. Opium has been administered in enormous doses, and by endermic means. I have seen a cure obtained with tobacco used in enema

and in general baths, with an infusion of the leaf, jointly with opium in moderate doses. When the disease is due to miasmatic influence sulphate of quinine must be given. But among the remedies for tetanus, chloroform in inhalations, and internally taken, has produced the greatest number of cures. Of thirty-two cases of idiopathic and traumatic tetanus, collected by Dr. Prevost, twenty-two recoveries were obtained; to this number I may add three more that I know of, in which chloroform administered in the above way, produced complete recovery in traumatic tetanus. Chloroform may be likewise employed for tetanus neonatorum, as children bear it easier than adults, the effects being more rapid, and not so dangerous as it has been ascertained under other circumstances. In every instance chloroform should be administered repeatedly till complete anæsthesia is produced.

About two years ago the *woorara* or *curara* was successfully administered by Dr. Vella in a case of tetanus; and soon after other trials were made, but without similar results, by Drs. Manec, Follin, Gintrac, and Middeldorpf. To the success of Vella another was added by Dr. Chas-saignac, these two being thus far the only ones that I am aware of. I may say that one year before Dr. Vella, in March 1858, Dr. L. A. Sayre in a case of traumatic tetanus from a wound in the thumb, having vainly performed amputation, employed topically a solution of *woorara* (gr. iv *woorara* in f. 3j *aque*) without success. In 1833, Morgan imagined the use of *woorara* as an antidote for toxic tetanus produced by *upas-tienté*; he performed several experiments upon dogs, obtaining the suspected effects, and likewise inoculated with *woorara* a horse affected with idiopathic tetanus. Two minutes after the operation the animal fell as if dead, artificial respiration reanimated him, and though the tetanic accidents completely subsided death occurred the day after from indigestion. Morgan, however, did not employ *woorara* in men, and the two cures lately obtained are judged insufficient to prove the efficacy of the remedy, on account of the circumstances in which they took place. Nor is the point settled as to the proper dose of *woorara* to be employed with men. Bernard has observed that the properties of the poison are not so active in sick or mutilated animals, and Broca pretends that in small doses *woorara* is soon and easily eliminated from the blood, both opinions explaining why the poison has been twice administered in considerable doses without causing immediate death. A patient attended by Dr. Follin had fifty centigrammes (about gr. x.) subcutaneously injected in a day, and in a case reported by Dr. Gintrac, twenty centigrammes (iv gr.) were employed in the same form during the day; in both instances the disease proving fatal.

As to the diet, it should be generous in cases of tetanus, the patient being carefully kept away from noise and any external cause capable of exciting the nervous system, and inducing a paroxysm.

Original Communications.

OBSERVATIONS ON CHLORATE OF POTASSA.

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NEW YORK.

As the fatal result of Dr. Fountain's lamentable experiment with this salt, may have a tendency to check the progress of that investigation of its therapeutic value which was in progress previous to that unfortunate event, and may thus cause the use of a medicine, than which I know of none more valuable in certain conditions, to be laid aside for a time at least, I feel impelled to offer a mite to the common stock of knowledge on the subject, in the hope of restoring it to a favor I think it deserves.

My attention was first called to this salt by the work of

Dr. W. Stevens, on the healthy and diseased properties of the blood, published in 1832, in which he extravagantly lauded the virtues of certain neutral salts, and especially of a compound of carbonate of soda 3ss., common salt ʒj., and chlorate of potassa gr. vii., dissolved in abundance of water, and administered at tolerably frequent intervals. Prescribed on purely chemico-theoretical grounds, this compound was represented to have proved a valuable means of correcting the depraved condition of the blood obtaining in fevers of a typhoid character. Bearing in mind the lack of soda and common salt in the blood of cholera patients, which the experiments of Clanny and O'Shaughnessy, in 1831-32, had demonstrated, very dilute warm solutions of these salts were injected into the veins, with the effect of immediately removing the symptoms of collapse, though the benefit conferred proved of very short duration. To administer the Stevens powders every half-hour or hour in such cases, seemed to follow as a matter of course. In 1834, the capital of Sweden, where I was then residing, suffered a most terrible visitation of cholera, apparently imported from England by the Hull coal ships. A sixteenth part of the whole population remaining in the city, was buried in six weeks, the duration of the epidemic, which steadily increased in extent to the twenty-first day, and then as steadily declined. Having already served an apprenticeship in the London epidemic, I was called on to take charge of the provisional cholera hospital, enjoying in addition abundant opportunities for observation outside its walls. During the great epidemic of Cincinnati in 1848 I was Health Officer of that city. Improving those opportunities, I made a number of experiments with the Stevens powders; not as specific curative agents, but as a part of that judicious treatment which neglects nothing in itself harmless, which on any theoretical or practical ground might be expected to benefit the patient. I place them alongside of warmth, friction, position; and it would be as hard to convince me that the one was valueless as the other. I employed them simply with the hope of gaining time, whether for the display of nature's own *vis medicatrix*, or for the effects of more potent medicines simultaneously administered, by delaying those extreme changes in the physical qualities of the blood which with progressing collapse render its further circulation at last impossible. I cannot believe that I was *always* mistaken in supposing that my very moderate expectations in this respect were realized.

In 1833 appeared the first part of the English edition of Copland's Dictionary of Practical Medicine. In the article on bronchitis, the author recommends the use of the chlorate in the chronic form of that disease. I have prescribed it in such cases ever since I read the article cited; confining my use of it to cases presenting evidences of imperfect aeration of the blood and deficient vital energy. I am quite sure that I have seen the too free administration of the salt again and again convert the chronic into a more active form of inflammation. In the person of a physician, nine years afflicted with that form of the disease to which the term bronchorrhœa is most applicable, and whose father and brother had died of the same, all previous treatment by able practitioners having failed in checking the rapid progress towards a fatal result, the chlorate of potassa, which I prescribed as a mere palliative, proved so curative that at the end of two months the sick man had left his apparent death-bed and was able to go about out of doors. He felt so well that he became grossly imprudent, staying out late in the autumnal night-dews, and suffered a severe relapse, from which no recovery could have been expected, and which slowly wore him out.

In 1837 was published the fourth part of Copland's Dictionary. In the article on typhoid fever, p. 1031, he says: "I have prescribed the chlorate of potash in several diseases, since 1819, and consider it a valuable medicine, especially in the advanced stages of typhoid fevers. When excitement or vascular reaction is about to pass into the nervous stage, and when inflammatory determination has

been removed, either of these salts (the chloride of potassium, or the chlorate of potash), but the latter especially, will be prescribed with benefit. The chlorate may be advantageously conjoined with tonics and camphor; or it may be given in doses of five or seven grains every two or three hours in tonic infusions, or in larger quantities at longer intervals." Several columns of highly suggestive remarks follow, but I will only quote further, the following: "Upon this principle, and for the reasons there stated, this method deserves a more extensive trial than it has hitherto obtained."

While my experience with the chlorate in fevers corroborates that of Copland to a certain extent, I have settled down into the conviction that its greatest value in such cases is as a prophylactic. Given in conjunction with quinine and mild aperients, I have seen it repeatedly stave off attacks of fever during epidemics, even of "Irish emigrant" or "ship" fever; the premature laying aside of the medicine being followed by immediate return of the threatening symptoms, again to be dispersed by a recurrence to its use.

In the state of constitution favoring the eruption of boils, felons, whitlows, and carbuncle, I have perfect confidence in the curative powers of the same prescription.

From my second official report as Superintendent of the Ohio Lunatic Asylum, for the year 1851, I shall now quote the substance of some remarks, illustrated by a couple of cases, in which the results of the administration of the chlorate must be considered decisive as to its "oxygenating" powers. I use the term for want of a better; not intending to be held responsible for any theoretical notions which any one else may attach to it.

A long experience of the value of the preparations of chlorine in adynamic conditions, caused by or accompanied with a presumably septic change in the blood, has led me to make trial of them in those forms of mental disease associated with an unusual lividity and coldness of the lips, extremities, and sometimes tip of the nose, evidently due to an embarrassed capillary circulation, and that, as I conceive, ascribable to some morbid condition of the circulating fluid itself. (Query—Is insanity ever a blood disease?) Again and again has the use of the chlorate of potassa corrected the condition of the circulation in question, *when all other means had been tried in vain*, speedily removing or diminishing the lividity, coldness, and sluggish movement, with a corresponding improvement in the health of both body and mind. I prescribed it in doses of three or four grains, quickly increasing to ten or more, dissolved in two or three ounces of camphor water, three or more times a day. Occasionally, it may with advantage be administered in infusion of valerian, arnica, or indeed in combination with almost any other medicine indicated. No one medicine was more extensively employed while I was chief physician than this.

No. 1343, male, twenty-eight years of age, second time in the Asylum, when readmitted was in a demented condition, which had been the case about four months. Tonics, stimulants, exercise in the open air, were employed; indeed, everything which could be done in a similar case, was put in force, without the slightest improvement. At the end of ten months thus spent, his condition became apparently hopeless; the chlorate of potassa was freely administered; evident and speedy improvement followed; the coldness and lividity of the extremities disappeared; every function was discharged with renewed vigor; his mind recovered its tone as fast as the body did; in one month from the first administration of the chlorate, he was discharged cured, and as I afterwards repeatedly heard, retained a better state of health than he had enjoyed for years previous to the attack of insanity.

No. 1494, male, twenty years of age, admitted with dementia of over four months' standing, grew progressively worse in spite of all efforts, until the use of large doses of the chlorate was commenced. An immediate improvement in hæmatisis and corresponding improvement in mental

manifestations took place, and he was discharged, cured, in six weeks from the day he commenced taking the chlorate.

These cases are *experimenta crucis*, and a considerable number of similar ones might be taken from the records of the institution. The salt proved not less useful as an adjuvant, whatever the other therapeutic indications, in all cases where the capillary circulation was very sluggish, the temperature too low, and the tint of the extremities and lips livid. In one instance a great improvement was manifested in twenty-four hours, and a chronic diarrhœa, to which the patient was subject, ceased. In a peculiar series of demented cases, where the very strongly marked anæmic symptoms so nearly resembled chlorosis as necessarily to suggest the use of ferruginous preparations, these would yet fail to effect any beneficial change, except after a previous free use of the chlorate, when their employment was followed by the happiest effects.

I trust this evidence will convince those who do not expect more of the salt in question, than they have a right to do, that in its proper sphere of action it is as reliable as any other article in our materia medica. Not having prescribed it, as some of the fraternity have, in doses which I cannot but consider as excessive and dangerous, I have met with but three cases in which it has disturbed the stomach, and produced nausea or vomiting; the one a lady with an irritable stomach, which almost all medicines and many articles of food offended; the second an old dyspeptic of scrofulous habit; and the third a lady of similar habit, both the latter displaying what the French would call the "dartrous," or herpetic diathesis. The two former used the same preparation which I have taken freely myself and administered to dozens, I may say hundreds of patients, no one of whom ever experienced any symptom of poisoning or disagreement. The third subject used the very French salt sold by Lazell, Marsh & Gardner of Gold Street, New York, which Dr. Fountain thought the only Simon Pure article. The husband of the lady writes me: "My wife thinks the reason it made her sick, was, she waited too long after eating before taking it, and then taking too much, she has tried it since in a smaller quantity, without producing any effect whatever." It should not be taken when there is a sense of natural or morbid hunger, and should always be abundantly diluted. My maximum doses have been ten grains; only in the cases of insanity quoted, where there is great insensibility to the action of all medicines, have I exceeded that amount at one dose, though I have been in the habit of giving small doses every hour. In the febriculæ of infants, I have for years used scarcely any other medicine than a dilute solution, say one grain to a teaspoonful of water, every hour or two. Its little taste, especially when still more dilute, makes it easy of administration, while it cleans the tongue and equalizes the circulation, acting in this respect much like the old febrifuges, the nitrates of potassa or soda, and the muriate of ammonia.

Of its action in stomatitis and kindred affections I need only say that my experience corroborates the statements of those who have already published favorable accounts.

ARM PRESENTATION

TERMINATING IN SPONTANEOUS DELIVERY OF THE CHILD.

By EDMUND ARNOLD, M.D., M.R.C.S.E.

OF YONKERS, N. Y.

Case 1.—On the 7th of October, 1856, I was called at about eight P.M., to attend Mrs. F—, a laboring man's wife, in her second confinement. Of her first I could not learn the particulars; was told, however, that it had been tedious and difficult, and the child stillborn. In the present instance she had been in strong labor since morning, and in the early part of the day another practitioner had been with her, but left her at two P.M., after some ineffectual efforts to

turn (as I was informed), in consequence of some disagreement with those around her. On examination, the cord and left arm were found filling the vagina; the os was fully dilated and the arm traceable up to the shoulder, but neither the head nor the neck could be reached. On the right side the cord could be followed to the umbilicus. The child was therefore lying on its left side, and in a completely transverse position. Having administered a full dose of laudanum, I made several attempts to turn, but ineffectually, the uterus having already contracted so firmly upon the child as to render the introduction of the hand impossible. The case looked bad enough, and there seemed little probability of delivery without instrumental assistance. The woman, however, was strong, the pains vigorous and rapid, and as matters could not well be made worse, I determined, carefully watching her strength meanwhile, to wait and see what nature was endeavoring to accomplish. After a while (I made examinations half hourly), I found I could get round the shoulder better, could even reach a little way along the neck, and by eleven P.M. could just touch the head. The umbilicus meanwhile had disappeared. By midnight the head had made such progress towards the upper strait that the sutures could be made out, and I began to entertain sanguine hopes that it would finally come down, and so it proved. By two A.M. it was fairly engaged in the upper strait, all anxiety as to the result was over; and at precisely a quarter to four A.M., the occiput emerged from under the pubic arch, and the labor was immediately completed. The child, which was under the average size, certainly under seven pounds in weight, was dead, and had been so, no doubt, for many hours. The sex I omitted to record at the time. The further progress of the case offered nothing worthy of remark, the patient recovering without any untoward symptoms.

The above case I believe to be almost unique. The possibility of spontaneous evolution is denied by many eminent practitioners, and it has been maintained by them, that when such has been reported to have occurred, it amounted to nothing more than the conversion of a single into a double presentation, the original presenting part remaining while another is forced down and delivery thereby accomplished. In the above case, however, while this was to some extent so, inasmuch as the arm remained within the vagina, still a certain amount of actual rotation of the entire body was necessary to bring about the result.

The third confinement of this woman occurred on the fifth of December, 1857, was quick, the presentation natural, and the child a large, well-formed, healthy girl; I proceed therefore, to my

Second Case, and fourth confinement, which took place on the eleventh of January last. On this occasion the patient had a midwife with her, and had been in labor with moderate pains for several hours, when, at seven P.M., the membranes gave way, and with the rush of waters down came the cord. The old woman, finding that something was wrong, immediately sent for me. Being absent at the time from home, I did not reach the house until ten P.M., when, on making an examination, I found a portion of congested cord protruding beyond the outlet, a large mass of it within the vagina, and in the midst of it the right arm. The head was firmly lodged over the pubic arch, and slightly to the left side. The woman's husband was immediately despatched for some chloroform, she being too unruly and unmanageable to submit to turning without it. On his return, in about half an hour, I found, to my surprise, that the head had made a start and come down to within two inches of the outlet, so that all idea of turning was abandoned. From this time, however, the progress was very slow, although the pains were strong, and not three minutes' interval between them. By one A.M. the vertex was within an inch of the outlet, the forehead presenting to the right side, the occiput to the left, the right ear immediately under the symphysis pubis, and the right hand, now reached with difficulty, lying on the left ear, so that the right arm was across the face. She now began to complain of pressure on

the rectum, as the face slowly worked downwards, the occiput upwards, and at a few minutes before two A.M. the latter emerged from under the arch, all the rest immediately following. The child, a male, above the average size, although alive at the commencement of the labor, was still-born, the face, chest, and right arm to a little above the elbow, black with congestion, the latter slightly blistered on the forearm from the great pressure to which it had been subjected. The cord also was very large, and filled to within a few inches of the umbilicus with coagulated blood. The mother did well.

One might almost from the above come to the conclusion with Dr. Denman, that nature may be safely left to her own course in all cases, and where turning cannot be effected, where the strength of the patient is good and the pains strong, there can be no harm in waiting awhile before resorting to extreme measures; but when the turning can be effected as easily as not, nothing can certainly be gained either for the mother or child by delay. I never departed from the "rule" except once, and then under circumstances peculiarly favorable to the descent of the head, which presented above the forearm, lodged forwards over the pubic arch, but projected over the upper strait. There appeared, moreover, ample room for its descent, and nothing but efficient pains wanting; yet after waiting nearly eight hours in vain, turning was ultimately necessary, the head having actually to be forced out of the way before the feet could be brought down. Dr. Gates was with me at the delivery in this case. It is somewhat singular in every-day practice, that out of twenty-three cases of midwifery attended by me between the fifteenth of October and the fifteenth of January last, no less than three were cases of arm presentation and one of triplets.

CASE OF

EXSECTION OF THE ARTICULATING FACES OF THE KNEE-JOINT,

FOR DISEASE OF ELEVEN YEARS' STANDING—CURE OF THE PATIENT.

By E. S. COOPER, A.M., M.D.,

PROFESSOR OF ANATOMY AND SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC, SAN FRANCISCO.

Miss M. K., æt. 21, was admitted into the Pacific Clinical Infirmary, July, 1857, in consequence of disease of the knee-joint of the left side, which had existed since she was nine years old. The disease commenced, as I supposed from the patient's history of the case, as white swelling; and when the acute symptoms subsided, the parts were left in that irritable condition, so often found in such cases, predisposing them to suppuration from time to time. Small pieces of bone were discharged at different times during the eleven years intervening between the commencement of the disease and the operation, and this nearly always occurred after any renewal of the inflammation. During a considerable portion of the time she was confined to bed, in consequence of the severe inflammatory symptoms. The amount of pain suffered altogether was almost indescribable. When admitted, she was able to walk but little, and had not been for a long period.

After having the patient take sixteen ounces of spts. minder. during twenty-four hours, preparatory to the operation, it was performed as follows. Two longitudinal incisions were made eight inches in length, one on either side, and an inch back of the patella. These were carried into the joint. A transverse incision was then made, dividing the ligamentum patellæ and other intervening soft parts. On opening the joint fully, the soft parts within it were found destroyed for the most part. The inter-articular fibro-semilunar cartilages were entirely destroyed, as well as the synovial membranes. The crucial ligaments were in an ulcerated condition, though not entirely destroyed. The

ligamentum mucosum was destroyed. After making the incisions as described, the lateral ligaments were divided, and the articulating faces of the joint fully exposed. These were found ulcerated throughout, demanding their removal, though the ulcerative process had not extended far into the substance of either the superior extremity of the tibia or the condyles of the femur. The soft parts were next removed from the articulating extremities for one and a half inches above and below with a bone chisel, which rendered their separation from each other to a considerable distance an easy matter when the leg was strongly flexed upon the thigh. The condyles of the femur were removed even with the upper part of the inter-condyloid space. Half an inch was removed from the tibia. This was readily effected with an ordinary amputating saw. The newly made articulating faces were so shaped as to fit each other nicely after the leg was placed nearly straight—the best position when the patient is to have an immovable joint. The patella was sound, and therefore not removed, although subsequent experience induces me to think that it is better to remove that bone, in all cases of exsection of this joint, whether it be diseased or not. When left, the extensors of the leg nearly always draw it far above its natural place, by which the limb becomes badly shaped. No vessel requiring the ligature was divided. Some of the articular branches were dilated, and on being divided were torsioned. All things being now ready for the adjustment of the parts, the ends of the bones were brought together with some difficulty, owing to the contraction of the flexors which had taken place as soon as they were relaxed. This, however, being accomplished, the fresh surfaces of bone were brought together, and the limb placed upon a splint reaching from the middle of the thigh to near the heel. A piece of lint, wet with an evaporating lotion composed of one part of alcohol and ten of water, was put into each incision; after which a roller, wet with the same, was applied as tightly as the patient could conveniently bear, commencing at the toes and continuing up to the middle of the thigh. This dressing was continued for five days, when the lotion was changed for poultices, which were renewed twice in twenty-four hours. This course was continued for about three months, when the patient had sufficiently recovered to move about upon crutches and to leave the infirmary. Iodide of potassium and conium were given internally, and tr. iodinii applied to the limb from time to time during this period.

The patient gradually but slowly recovered, till at the end of twelve months the usefulness of the limb was measurably restored; although this was necessarily diminished in consequence of a want of development during the eleven years in which the limb was diseased. It is now nearly four years since the operation, and the limb has become almost as useful as its fellow. The muscles which were so small and flabby have since become comparatively large and firm. But considerable inconvenience is suffered in consequence of shortening of the limb, caused by the combined agencies of long-standing disease producing a want of growth, and the removal of the articulating faces of the knee-joint. The patient has occasionally suffered from the formation of small abscesses in the region of the joint, and several times these were found to be dependent upon a small piece of exfoliated bone causing local inflammatory action in its progress towards the surface. She is now married, and the mother of a bright healthy boy six months old. During the latter periods of utero-gestation, the limb was more painful than usual, but since the birth of her babe not the least annoyance has been experienced. A complete recovery may be said to have occurred.

Still, it is somewhat difficult to say when a perfect cure is effected in such cases, because months may elapse without the patient suffering the slightest irritation, and yet a renewal of the disease of bone occur. Atmospheric vicissitudes, bruising or twisting the limb by a mis-step in walking, are often the causes, and not unfrequently inflammatory action will recur without any assignable cause.

CASE OF

SPONTANEOUS AMPUTATION AT THE SHOULDER.

By W. L. APPLEY, M.D.,

OF COCHECTON, SULLIVAN COUNTY, N. Y.

ON April, 15, 1861, at two o'clock P.M., I was called to see Amelia Poor, a little feeble girl, aged six years, who had just fallen from what the children call a "see-saw." On examination I found compound fracture of the right ulna about its middle, and dislocation of the upper end of radius forwards. I reduced the dislocation easily, dressed the wound over the fracture of the ulna, and applied loose dressing to the hand, forearm, and elbow; I observed a coldness of the hand and arm, but supposed reaction would soon commence. I examined the arm at 6 o'clock P.M.; found the hand and arm still cold, the hand livid; I then removed all dressing, and applied warm alcohol and spirits of turpentine, with friction and artificial heat. The child did not complain of much pain up to this time. Seven o'clock A.M., of the day following, found the hand and forearm evidently in a state of gangrene; child, to appearance, sinking rapidly. Gave brandy, beef-tea, wine whey, quinia, and morphia to allay irritability; sour poultice applied to the arm. Six o'clock P.M., gangrene commenced to extend above the elbow. Having been advised by Dr. Willard Parker, some two years ago, not to amputate in mortification until the line of demarkation had formed, I accordingly waited. Mortification extended to the shoulder and over the scapula. April 24.—I divided the dead soft parts about three inches below the head of humerus, and sawed off the bone. This relieved the child of the weight of the dead arm, and enabled her to sit up.

April 29, at 4 o'clock A.M., I was called in haste to see the child on account of hemorrhage, and found her lying on her right side. On examination, I found that some hemorrhage had taken place. I turned the child carefully upon the left side, and the dead soft parts, the remaining portion of the humerus, and the entire scapula, fell off; the axillary artery bled freely. I applied a ligature to the artery, and brought the sides of the wound towards each other with adhesive strips; there was but a small wound to granulate. May 20.—The child is able to walk out, and is nearly as well as before the accident.

NEW TREATMENT OF PROLAPSUS ANI.—M. Foucher recommends the subcutaneous injection of strychnia in the treatment of the prolapsus ani of infants. Ten drops of a watery solution of strychnia (gr. iij to 3xj) are to be injected with Wood's syringe into the sphincter ani, and repeated after twenty-four hours. M. Foucher records the case of a girl aged four years, in whom this treatment proved entirely successful. Great improvement followed the first injection. The quantity of strychnia injected on each occasion was about one-twentieth of a grain.—*Gaz. Méd. de Paris*, Feb. 9, 1861.

STATISTICS OF CRANIOTOMY.—The operation of craniotomy is said to be performed in Germany once in every 1944 labors; in Paris once in every 1628; in France at large once in every 1200; in Vienna once in every 688; in England once in every 340; in Ireland once in every 106 labors.—*British Med. Journ.*

WHITE GUNPOWDER.—The London correspondent of the "Leeds Mercury" says, "I have heard in this city of a curious invention, which concerns alike sportsmen, rifle-men, and the scientific. It is the manufacture of white gunpowder. It is composed of yellow prussiate of potassa, chloride of potassium, loaf sugar, crystallized sugar, and brimstone. It possesses superior qualities over the black powder, being quicker and more powerful in its action, and not fouling the gun; for the delicate in olfactory nerve, it may be added, that it is without unpleasant smell. It has just been patented."—*British American Journal*.

Reports of Hospitals.

BELLEVUE HOSPITAL.

SERVICE OF A. B. MOTT, M.D.

Necrosis of Inferior Maxilla. Plastic Operation.—Rosina N—, æt. twenty-one, a native of Germany, married, and intemperate in her habits, was admitted to the hospital about the last of July, 1860. Three years ago, while working in a match factory, she took a very severe cold, which occasioned great pain and swelling about the inferior maxilla. A tooth was drawn in the hope of relieving the pain, but the swelling continued to increase, and an abscess formed in the alveolar process. A great deal of pus was discharged, and the disease continued to extend until it involved the whole of the lower jaw. At the end of eighteen months, pieces of necrosed bone were detached and discharged from time to time. On entering the hospital, the patient appeared much exhausted and cachectic. There was a very abundant and fetid discharge from several large sinuses under the angles and near the symphysis of the maxilla.

On the fourth of August Dr. Mott removed the whole of the lower jaw through an incision extending from the ramus of one side to that of the other. On account of the unhealthy condition of the tissues, the wound was filled with lint, and allowed to heal by granulation. Recovery was rapid, and the patient left the hospital about the middle of September.

On the third of February, 1861, the patient returned to the hospital, to obtain relief from the effects of the cicatricial contraction consequent upon the previous operation, which were so great as to fix the chin upon the sternum, rendering it impossible to raise the head into an erect position. The lower lip was, consequently, drawn downwards and backwards in such a manner as to prevent the complete closure of the mouth, the upper lip projecting far beyond the lower.

February 16.—The patient was etherized, and Dr. Mott proceeded to raise from the right side of the neck a flap eight inches long and four inches wide, extending from the mastoid process to the point of the acromion. The cicatricial tissues were then dissected from under the chin, and the flap was brought around and secured with silver sutures in its new position. The denuded surface upon the side of the neck was covered by drawing together the margins of the incision. The patient was then placed upon her back, in bed, with her head depending over a pillow, which was adjusted under her neck. On the fourth day after the operation, the distal portion of the flap began to slough; its base was, however, adherent in its new position. The sloughing continued until a surface two inches square was denuded upon the left side of the neck. Granulations sprang up over this surface; the remainder of the flesh became united by the first intention to the tissues subjacent and adjacent; and on the fifteenth of April the patient was discharged. She could then hold her head perfectly erect, but could not throw it backwards, beyond the axis of the body. Her general appearance was greatly improved, notwithstanding the deformity of the lower jaw, occasioned by the imperfect reproduction of its substance.

Cancerous Disease of the Kidneys.—H. N—, fifty-eight years of age, and a widow, had long been subject to ill-health. For more than a year she had suffered from necrosis of the ilium, for which she had submitted to an operation at St. Luke's Hospital. A small sinus, however, still continued to discharge, and she applied for relief on the tenth of May, 1861. For two or three days after admission the patient complained of pain in the right lumbar region, where was situated a small sinus leading to the necrosed portion of the crista ili. On the 12th of May she began to experience great pain in the epigastrium, ac-

companied by frequent and uncontrollable vomiting. The matters voided consisted, at first, of the ordinary contents of the stomach; then of a greenish-yellow liquid, which was ejected in great abundance. The urine was very scanty, and creamy in its consistence and appearance. It solidified on the application of heat, and showed, under the microscope, pus-cells, granular matter, and the triple phosphates. The countenance soon assumed the hippocratic expression; the skin became dry; the pulse was moderately accelerated; the tongue was covered with a dirty white fur. The mind continued perfectly clear to the last. Physical examination indicated no disease of the thoracic organs. The region of dulness over the liver extended as low as the umbilicus. The epigastrium was exceedingly dull on percussion, and the left iliac fossa was but slightly resonant. Pressure upon the abdominal walls did not excite pain.

The bowels were freely evacuated, but the vomiting continued, without yielding in the least to the various expedients employed in hopes of checking it. An attempt was made to sustain the patient with nutritious injections, but without success; even the smallest quantity of liquid being immediately rejected by the rectum. The patient suffered great agony, and died after a severe illness of three days.

Examination of the body, twenty-four hours after death.—Body well nourished. The cavity of the cranium was not opened. The lungs were healthy, with the exception of one or two small concretions, supposed to be tuberculous, at the apex of the right lung. The heart was small, pale, and flabby. The stomach appeared to be perfectly healthy. The peritoneal surface of the small intestines was slightly congested. The omentum was loaded with fat, which was disposed in such a way as to account for the greater part of the dulness observed before death. The liver was small (three pounds, six ounces), but healthy. The size of the spleen was normal, but its surface presented a tallow-like appearance, as if smeared at various points with the droppings of a candle. These spots were beneath the peritoneal covering of the organ, and were wholly superficial, being not more than a line in thickness. The pancreas was of normal size and appearance. The left kidney weighed seven ounces; its cortical portion was infiltrated with dense whitish tissue, like that found in scirrhus carcinoma of the breast. The position of the right kidney was occupied by an abscess which contained a large quantity of dark-colored pus, and disintegrated cancer tissue. There was pus in the right ureter. The ureters were not enlarged. The bladder was the seat of chronic inflammation; its coats were much thickened and corrugated. The uterus and ovaries seemed to be healthy. Microscopical examinations indicated Quain's degeneration of the muscular fibres of the heart, and the presence of numerous granular and poly-nucleated cells in the substance of the kidneys. No other abnormal appearances were noted.

A NEW CURE FOR AN INCURABLE AFFECTION.—A remarkable discovery has been made in Germany by a physiologist—the exact cause of “sea-sickness.” The “up and down” tension of the muscles on a particular valve of the stomach while an animal is under chloroform, is now shown in lectures to bring on sickness in such animals at once. The same occurs in a rough sea when a vessel heaves up and down. Some remedies, chiefly to steady the muscles, such as a particular form of bandage to be worn at sea, a combination of champagne and other remedies to drink, have been referred to as “stopping sea-sickness” in an instant.—*British Med. Journal.*

NEW TREATMENT FOR HOUSE-MAID'S KNEE.—MR. SKEY is in the habit of passing a thread seton through the sac, by means of which an abscess is formed, which after being opened, results in a cure of the original affection. Though Mr. Skey uses this plan of treatment in all forms of bursitis, he thinks it is better suited to the indurated bursæ.—*Lancet.*

American Medical Times.

SATURDAY, JUNE 8, 1861.

EXPERIENCES OF 1812.

ONE of the first evils encountered in the war of 1812, was the *unfitness* of a large proportion of the volunteers for the service which they were called upon to perform. Says SURGEON MANN: "It may not be as generally known as it should be, that a large proportion of the army were not, when first enlisted, fit for soldiers. * * * Many habitually intemperate, with constitutions broken down by inebriation and its consequent diseases; whose bloated countenances exhibited false and insidious marks of health, contribute to fill our hospitals. * * * It has been too much an object with officers on the recruiting service, to fill up their rolls with numbers; without reflecting that the strength of an army consists of able-bodied men. These infirm men were always a dead weight, requiring a detachment of the more efficient, as nurses or attendants. A body of five thousand composing our troops, seldom have furnished more than three thousand capable of active duty in the field. * * * Many of them became fit subjects for hospitals as soon as they commenced their military services." SURGEON CUTLENSLO writes: "Many who were rejected by me in my examination for the naval and marine service, were received as recruits for the army. * * * I believe that the Philadelphia Alms-House was cleared for Duane's rifle corps!!! The hands of many of those men trembled so much that they could scarcely load a rifle, much less take good aim."

We are not surprised to learn that our recruiting officers have been repeating the same error, so disastrous to the efficiency of the army, but we had hoped that this evil would have been corrected by the Medical Inspectors. But they, too, have suffered so many unfit persons to pass muster, that by direction of BRIGADIER-GENERAL MANSFIELD, in command of the troops at Washington, a *re-inspection* of the volunteer forces has been ordered. GENERAL SCOTT, whose vast experience in the organization and command of military forces commenced with the war of 1812, commanded this important order to be issued at the instance of the New York Sanitary Committee. That distinguished chieftain warmly commended the measure as tending to increase and insure the efficiency of the troops, illustrating his opinion by striking incidents in his own military experience. We shall again recur to this re-examination and its results.

Great importance was attached to cleanliness as a means of preserving health, by the surgeons of 1812. "Cleanliness," says Surgeon MANN, "is the life of an army; while filth and dirt are among its disease-generating causes. * * * Cleanliness should be enforced upon soldiers with most rigid laws. That code under the Jewish dispensation, enjoining ablutions and purifications, was obeyed as a religious rite; it has been quoted as a system well adapted to a camp. It has been observed, that those regiments which have been subjected to rigid discipline, and where cleanliness has been strongly enforced, have enjoyed higher states of health than those who have been inattentive to this

duty. A man cannot be made a good soldier unless he is made to keep himself clean. * * * The regiments of heavy and light artillery suffered less by disease during the war, than any other regiments on the Northern frontiers. It is unnecessary to observe that these regiments have been always subject to correct discipline; and their better health may be much imputed to cleanliness. Their quarters and encampments were generally in the best state; the men were mostly neat and clean in their dress and appearance. There was one regiment on the frontiers, which at one time counted nine hundred strong, but was reduced by a total want of good police to less than two hundred fit for duty in the course of two months. This regiment, in its appearance, was at that time dirty in the extreme. * * * At one period more, than three hundred and forty of this regiment were in hospitals; in addition to these, a large number were reported sick in camp."

The use of ardent spirits as a part of the rations of soldiers was assigned as one of the most prominent predisposing causes of disease in the army of 1812. The same observation has been repeatedly made by English military surgeons. During the Revolutionary war it was noticed by the surgeons that when the army received no pay, and the soldiers could not therefore procure liquors, the general health of the troops rapidly improved. SURGEON MANN writes:—"My opinion long has been that ardent spirits are an unnecessary part of a ration. * * * The troops, during this period (Dec. 1814, to April 1815) were not paid, a fortunate circumstance to the army, arising from a want of funds. This embarrassment, which was considered a national calamity, proved a blessing to the soldier. When he is found poor in money, it is always the case that he abounds in health. * * * Deserters from the British army, of whom some hundreds came to our posts, exhibited marks of high health; while those of our soldiers were pallid and emaciated. * * * It led me to seek the cause. Upon inquiry it was learnt that spirits were no part of the ration of the British soldier; that these liquors could not be procured in the upper province of Canada for money. * * * Diseases and mortality generally, but not necessarily, followed the paymasters of the army."

The change of diet to which the recruit has to submit on leaving his employment and home, and entering the camp, is noticed as an important predisposing cause of disease. A person accustomed to a mixed diet of meat and fresh vegetables, in liberal quantities and at fixed hours, is suddenly deprived of fresh vegetables; the meat is in small quantities, and the whole is prepared in a manner to render it but little nutritious. As a consequence, the tone of the system is lowered, the appetite becomes vitiated, and both the fluids and solids of the body are thus changed. Diarrhoea and dysentery soon make their appearance, as a result of the direct impression of this change of diet first upon the digestive organs; these diseases are soon followed by fevers, generally of a low type, as a consequence of the depraved condition of the general system. In the Crimean war the effects of poor diet in the early part of the campaigns were seen in the vast numbers of sick with diarrhoea, cholera, and dysentery, which subsequently crowded the hospitals. We trust our authorities will take warning in time, and with ceaseless vigilance guard the dietary of the volunteers. Already loud complaints are made, in most of the camps, of a want of properly prepared food. Great as may be the immediate inconvenience resulting to the recruit

who has to accept of these discomforts, a discreet government overlooks this consideration, and regards rather the disastrous effects which must follow in the form of wasting and devastating diseases, and the necessary loss of military strength and efficiency.

The surgeons of 1812 insist upon the importance of proper clothing, as a protection against the changes of weather, as well as of climate. Woollen garments next to the skin were recommended to Government, and were furnished the second year. Says SURGEON MANN:—"Having experienced from woollen garments next the skin the greatest benefits, while exposed in my tent on the northern frontiers, during every campaign, and witnessed its salutary effects in others while in the field, an additional improvement is urged, for the consideration of government—that the soldiers destined to perform duty on the northern and western frontiers be entirely furnished with woollen garments. There are a few days only, during a campaign, that men would be incommoded by the increased heat of woollen garments; then only a few hours in the day. Men in tents during the hot seasons experience little inconvenience from these garments of wool next the skin, which is overbalanced by their advantageous effects while exposed to cold and rain on necessary duty. Checks of perspiration, or an abstraction of heat from the surface of the body, co-operate with a variety of other causes to produce diseases, which these garments would obviate. * * * Clothed in wool, during all seasons, soldiers would enjoy higher degrees of health. We should behold them more hardy and robust, enduring the severest hardships, the most fatiguing marches, and the inclemency of seasons, without attacks of disease."

The untimely distribution of hospital stores was an unremedied evil during the war; at times resulting in great suffering and mortality. This was due in part to the subordinate position of the medical department of the army; little attention was given to the orders of surgeons, and generally the troops were first provided for, and secondarily the sick. But a more serious obstacle to the proper supply of hospital stores, was the tedious formality that had first to be regarded. All orders must proceed from the Surgeon-General, who was five hundred miles distant from the army, and almost inaccessible during the winter, and who could not anticipate the movements of the troops. The extreme suffering of the sick, destitute of blankets and beds, during a rigorous northern winter, while such needed provisions were within reach but not obtainable, owing to the want of proper authority, has found a parallel in the Crimea, where a vessel laden with warm clothing, was kept at anchor with its terribly needed stores of woollens hermetically,—officially sealed, when within sight of the frost-bitten and nearly naked British soldiers, until the priceless and longed for cargo was finally shipwrecked. Such defects in army regulations should not be known in this enlightened nineteenth century. They are a disgrace to Christian civilization. Yet within a few days we have seen whole regiments of the hardy yeomanry from a neighboring State, clad in miserable shoddy cloth that was already falling from the bodies of the men. Such outrages upon a citizen soldiery cannot safely be repeated; but grievous evils result from the abuse before it can be corrected.

We shall close these *excerpts* from the recorded observations of a most sensible and practical surgeon with the fol-

lowing quotation, which presents with axiomatic force the sense of precepts taught in the preceding selections: "The science of preserving health is too little known to new recruits; a knowledge of which, young officers unaccustomed to the police of a camp, do not impress upon them the importance of acquiring. An inattention to a proper dietetic management was among the causes of diseases and mortality incident to our troops; to which may be added, filthiness, and an intemperate use of ardent spirits. These sources of disease we shall have repeated occasion to notice, as frequent causes of the failure of important expeditions, and ruin of armies, by which the highest expectations of a nation are often disappointed."

THE WEEK.

THE Seventh Regiment returned from the seat of war last Saturday, after an absence of five weeks, bringing its entire *personnel*—not a man being left in hospital. What happier illustration could be given of the utility, the indispensable importance of the strict sanitary police and military discipline which characterized the encampment of that regiment at Washington. Order, cleanliness, lime, and judicious engineering under LIEUT. VIELÉ, of the Engineers' Corps, with wholesome advice and but little medicine from the distinguished Medical Staff, produced legitimate results.

TRAVELLING incognito with a company of highly intelligent army officers, a few days ago, we inquired of them what diseases were already most prevalent and most to be feared among the troops at the various encampments and dépôts. "Diarrhœa and typhoid fever," was the reply from each officer. And in answer to the inquiry—What simple, non-medical measure would most effectually protect the soldiers from those maladies?—the response, from their own observations and large experience, was—"Flannel! soft woollen shirts, in the hottest weather, and always, a broad flannel roller about the abdomen, double in front." More sensible advice could not be given.

At a large meeting of the Medical Men in this city and vicinity, held at the College of Physicians and Surgeons, June 3d, the following Resolutions were adopted:—

Resolved—That the physicians assembled at this meeting, hereby respectfully express the opinion that the welfare of our volunteer troops requires that there should be an increase in the number of medical men in each Regiment.

Resolved—That experience has demonstrated the utility of ambulance corps and ambulances, and we, therefore, earnestly recommend that to every regiment there be attached a well trained ambulance corps, furnished with suitable ambulance carriages and appliances for the safety and comfort of the wounded.

Resolved—That a copy of these Resolutions be forwarded to the Surgeon-General of the United States Army, the Surgeon-General of New York, and the Medical Director of the New York Volunteers.

We have reason to believe that these humane provisions for the wounded will be promptly provided by the proper authorities. The nation's private professional zeal and skill in devising means for alleviating the inevitable calamities of the war now in progress, are respectfully heeded by the Federal and State Bureaux. Improved stretchers and flying ambulances are being introduced into the service, and no hindrance offered to the increase of such means by civil aid. Already the Union Defence Committee have forwarded to the seat of war *fifty ambulance carriages*, and the New York Medical Association for Hospital Supplies have furnished an incredible number of their improved field *stretchers*. Every practicable suggestion and plan for the hygienic protection of the troops is cordially received and promptly

adopted, as has been signally illustrated in the experience of the Sanitary Committee that was recently sent to Washington from this city. No Government ever before has so promptly and wisely utilized the voluntary offerings of the people.

Reviews.

A TREATISE ON HUMAN PHYSIOLOGY; designed for the use of Students and Practitioners of Medicine. By JOHN C. DALTON, JR., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York, &c., &c. Second Edition, revised and enlarged. With Two Hundred and Seventy-One Illustrations. Philadelphia: Blanchard & Lea. 1861, pp. 690.

WE are not surprised that a second edition of this excellent treatise has been called for so soon. Though not complete in all the branches of physiological study, it is still so compact in style, so forcible and direct, and withal abounds with such evidences of original research, that the work commends itself strongly to the student. The additions to this edition are numerous and valuable. An entire chapter is added on the Special Senses; "new views and facts" are added to the chapter on the Cranial Nerves; a chapter on Imbibition and Exhalation, and the Functions of the Lymphatic System. Twenty-two new illustrations have been added.

THEORY AND PRACTICE OF THE MOVEMENT CURE, by the Swedish System of Localized Movements. By CHARLES FAYETTE TAYLOR, M.D. With Illustrations. Philadelphia: Lindsay & Blakiston, 1861. 295.

THE "movement cure," as it is called, has received, we are persuaded, far too little attention from the profession in this country. This is not owing to its intrinsic merits, but is due to that thoroughly rooted prejudice in the medical mind against new specialties which claim by one method of treatment to cure nearly all diseases. It is well, perhaps, that this prejudice exists, as it saves the profession from adopting, with that unquestioning incredulity which characterizes other classes, the absurd theories and inventions of charlatans. But this distrust should not be allowed to forbid examining such theories as are based upon plausible grounds, with rational methods of explanation. Such we believe is the movement cure. It aims to correct deranged conditions by the development of those muscles or organs which have been long in abeyance from diseased actions. In the words of the author, "the movement cure treatment is simply certain physiological principles put in practice."

The work of Dr. Taylor is a systematic treatise, containing the principles on which this treatment is based, and full and explicit directions in their application to individual diseases. The author discusses the nutritive processes, muscular contraction, and the physiology of general exercise, the subjects of the first three chapters, in a most satisfactory manner. Every physician should study these subjects, for they embrace principles which underlie the rational treatment of chronic diseases. The following, on the physiology of general exercise, is an example of the author's style of treating his subject:

"It is commonly supposed that the effect of exercise is principally on the muscular tissue, but such is not the case, for movements with muscle alone would be impossible except in a few insignificant instances. Every movement requires not only the muscles engaged, but also every other part of the organ moved—vessels, tendons, ligaments, and bone. It is not the *muscle* alone, but the *limb* that moves. And if development is the result, the muscular tissue receives *only its share* of such development. It is just as necessary to the development of *bone* that

it should perform *its* part in the exercise—that is, to sustain the muscles, their origins and insertions—as it is for the muscles to perform their part in the movement of the member. It can be easily seen that the bones and all other tissues besides the muscular are necessary to the perfect action of the leg, and that the development of all these tissues is as much dependent on and affected by the exercise which all are employed in making, as any one tissue.

"But this is equally true of every other part of the body; of the trunk as well as of the extremities. The muscles of the chest, for instance, cannot act independently of the lungs beneath them; but taking the thorax *as a whole*, the lungs form a part of that apparatus, and the force, direction, and perfection of all motions of that part of the trunk depend directly on the condition of the thoracic contents. And every movement implicates the lungs, heart, etc., *as a part of the moving apparatus*; and the result of the movement, whether it be development or exhaustion, embraces the contents of the chest as well as the bones, ligaments, and muscles, for the reason already given, that the contents were necessary to the perfect movement.

"We move in general exercise not the muscles of the body alone, but the body *as a whole*, and hence the nature of the exercise we take affects us as a unit. This is plainly seen in the physical characteristics, anatomical conformations, peculiar diseases, and even marked intellectual and moral distinctions in different classes of men, according to their trades and avocations, amusements and recreations."

The author's remarks upon the kind of exercise required for the development of muscles, the influence of dress upon the health of women, &c., are in excellent taste.

The second part of the work is devoted to the therapeutical application of these principles. We cannot follow the author in his illustrations of this part of his work, but must simply commend the volume to the earnest attention of the profession.

I. HAND-BOOK FOR THE MILITARY SURGEON, WAR SURGERY, ETC., ETC. By CHARLES S. TRIPPLER, A.M., M.D., Surgeon U. S. A., and GEORGE C. BLACKMAN, Professor of Surgery in the Medical College of Ohio, etc. Cincinnati: ROBERT CLARKE & Co. 1861. 12mo., pp. 121. [With an Appendix of Supply Tables, etc., from the Army Regulations.]

II. A MANUAL OF MILITARY SURGERY; or, Hints on the Emergencies of Field, Camp, and Hospital Practice. By S. D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College. Philadelphia: J. B. LIPPINCOTT & Co. 1861. 18mo., pp. 186.

III. A PRACTICAL TREATISE ON MILITARY SURGERY. By FRANK HASTINGS HAMILTON, M.D., Late Surgeon Thirty-third Regiment, New York State Artillery; Professor of Military Surgery, and of Diseases and Accidents incident to Bones, in Bellevue Medical College; Surgeon to Bellevue Hospital; Professor of Surgery and Surgeon-in-Chief to the Long Island College Hospital; Author of "Treatise on Fractures and Dislocations." New York: BAILLIERE BROTHERS, 440 Broadway. 1861. 8vo., pp. 234.

WAR makes most urgent demands upon the intellectual no less than the physical resources of a people. It requires quick and effective work, and decided concentration of purpose. The three books on Military Surgery which have reached us during the past week from the three great military centres of the North and West, have been prepared and are brought forth in harmony with the spirit and demands of the times; and it is a subject for congratulation that three American Surgeons who have most justly and largely earned the confidence and esteem of their brethren have been moved by the same ennobling professional and patriotic motives to undertake, each in his own way, a work that was greatly needed.

Considering the inevitable haste attending the preparation of these brochures, they are all peculiarly worthy of their authorship. They will certainly be very highly appreciated by the thousands in our profession who now for the

first time have their attention called to the great practical questions of military surgery and camp hygiene.

The medical profession, especially those engaged in the volunteer service, and the public, military and civil, owe a debt of thanks to these authors for their timely and valuable hand-books.

Dr. Tripler's work appeared first, and he has honestly and successfully endeavored to supply a want long felt. He has furnished a guide to the young medical officer for the exact performance of his duties, and a medical and surgical treatise of very great value.

The division of the work is excellent, and proceeds in regular gradation from the method of obtaining supplies, preserving the health of soldiers, and organizing hospitals, to the highest problems of the treatment of disease, and of the multiform and complicated injuries of the battle-field. The chapter on military hygiene is admirable, and exhausts the principles which lie at the basis of all measures for preserving health in crowded communities. We think, however, its details could with advantage undergo amplification. There is nothing which is so easily overlooked, or to which the minds of all, both officers and men, become so soon habituated, as the neglect of the simplest rules of health. The medical officer is human and military, and falls into the same indifference.

In this connexion we urgently recommend regular and frequent systematic medical inspection of all commands by the senior medical officers, with *authority* for the purpose of anticipating morbid tendencies and discovering epidemic influence. Under the same head would come prophylaxis and the prevention of malarial disease by quinine. The question here raised must be passed over for the present, as the limits of this review forbid its full discussion. The indispensable necessity of thorough previous examination of recruits is insisted on, and the certainly fatal consequences of its neglect pointed out. There can certainly be nothing more cruel or unprincipled than for an examining physician to pass men physically disqualified for the life of a soldier. In Dr. Hamilton's treatise we find the subject of recruiting ably treated, twenty-two pages being devoted to the consideration of principles and rules to be observed in the examination and trial of recruits. As Dr. Tripler has already published, by authority of the War Department, a most valuable Manual upon this subject, he omits a repetition of it in his Hand-Book. It will be fortunate for the success of American arms, as well as for the safety of the miserable individuals who make up the majority of the sick lists in volunteer regiments, if Professor Hamilton's admirable instructions on the subject of recruiting are heeded by regimental surgeons and medical inspectors.

The chapter on camp dysentery, which has always been the curse of American armies, is the most complete and succinct we have ever read. It furnishes the young army surgeon with the safest and best rules of practice, and with certain directions for diagnosis. One great point is the time of administering purgatives. Many cases of diarrhœa and dysentery can be cut short by the sulphate of magnesia, as Dr. Tripler recommends.

There is a form of pure dysentery which is apt to follow the sudden supply of fresh beef to healthy men who have been long accustomed to salt provisions. In this form sulphate of magnesia is a specific.

A soldier, after a long and painful march, and with an exhausted nervous system, often eats greedily of coarse and perhaps ill-cooked provisions. The exhausted brain refuses the requisite supply of nervous power to the stomach, and the food becomes a mass of foreign decomposing matter. Such a man seldom complains at the time, and he is fortunate if severe diarrhœa relieve him of the irritating contents of his bowels. Such attacks, when discovered, are of course to be recognised as conservative efforts of nature, and are to be simply modified if excessive. The shock of overloading the stomach in the state of exhaustion referred to, is not uncommonly fatal in hot weather.

The principles of medical treatment are sound and highly

conservative. The recommendations respecting Fowler's Solution and the perchloride of iron are worthy of general attention and extended trial.

Opium is, after all, the great remedy for soldiers. Under circumstances of great privation, depression, and suffering, it should be judiciously given to both officers and men, to support nervous power, and calm and mitigate irritation and distress.

The chapter on gunshot wounds is able and learned, and in some respects in advance of any other work. The duty of trying to save a thigh fractured by a bullet where the principal vessels and nerves are uninjured, is asserted, always, however, with subordination to the means at command. It should always be tried on the field, even if hand carriage could be obtained, so that the patient need not be disturbed from his position. It would be out of the question in an ordinary ambulance conveyance.

Unnecessary dressing of gunshot wounds is condemned, and tents, setons, and ointments receive their quietus. The directions in respect to foreign matters in the wound, and the ball itself, are precise, and in harmony with true surgical principles. This chapter must be faithfully studied.

The chapters on wounds and injuries of the chest, amputations, wounds of the abdomen and head, very nearly exhaust their respective subjects.

The directions for amputation are in the highest sense conservative, consistent with the exigencies of field service. We have reason to believe that the subject of exsection would have been more fully discussed if time had been allowed the author to complete his work.

Dr. Hamilton has also dismissed this important subject without discussion, doubtless relying upon the military surgeon's intimate knowledge of the history and results of resections. Dr. Gross has properly encouraged these conservative efforts of surgery, and refers to the experience of the Crimea in the operations for resection of joints, the statistics of which should be pondered by surgeons in our own army.

Resections at shoulder in Crimea	41 cases	3 deaths
" elbow in Crimea and Schleswig-Holstein	82 "	16 "
" hip (six cases being in the Crimea)	11 "	10 "

We purposely refrain from entering into any discussion of the numerous surgical points which arise in reviewing a work of this kind. We simply desire to see it in the hands of every candidate for the honors and dangers of military surgery.

The work is written throughout with a calm, highly philosophical spirit, and shows in every line an intense love of truth, and a thorough honesty of purpose. It is the result of a long life, which has been rich in well digested experience, and is the product of a sound, highly educated intellect.

Prof. Blackman has performed his portion of the labor in an efficient manner, and the work presents the combined maturity of an experienced military surgeon, with the freshness and vigor of a civil surgeon of high character and increasing reputation.

The book contains an analysis and *résumé* of the experience of the best authors, and is a complete text-book for the field. We hope Dr. Tripler will, after the close of the present war, give us another edition, with the fruits of his experience, and that which the war will give, especially with reference to resections and amputations through joints, Pirogoff's operation, etc., etc. We understand that Dr. Tripler condemns Chopart's and Syme's operations, and advocates Pirogoff's.

New and enlightened legislation is required on the important subject of military medicine. Skilful generalship against disease is absolutely demanded, and the intelligent public sentiment of the country will respond to wise and liberal legislation. Above all is it necessary that the men who have shown the possession of the requisite knowledge, skill, and ability, should receive the direction of these affairs. A first class man, who has the endorsement of the profession, should be at once made Medical Director, for

the field and camp service of our army, or at least for the voluntary troops, with the rank of Major-General, and put on the staff of the Commander-in-Chief.

(To be continued.)

Progress of Medical Science.

MATERIA MEDICA AND PHARMACY.

Extemporaneous Pharmaceutical Preparations.—In the May number of the *American Journal of Pharmacy*, we find an Essay by William H. H. Githers, in which the writer remarks, that having observed a great want of stability in the mixtures of extract of cannabis indica, resin of guaiacum, and balsam of tolu, as called for by the usual extemporaneous prescriptions of physicians, it occurred to him that much more elegant preparations might be introduced to take the place of some of those now in use. He therefore instituted a series of experiments for the purpose of arriving at the best method of dispensing certain remedies.

Cannabis Indica.—In order to best suspend this extract in aqueous mixtures, it was found by experiment that the extract should be first triturated with olive oil, with which it readily forms a transparent solution. This mixed with mucilage of gum arabic, and sufficient water added to fill the required measure, forms a mixture entirely permanent. The extract, if good, being soluble in all proportions of olive oil, the formula will answer for both dilute and concentrated mixtures.

Resin of Guaiacum in aqueous mixture.—One drachm of the resin triturated with half a drachm of carbonate of soda and a few drops of water, formed a pasty consistence, which was made into an emulsion with one drachm each of gum arabic and water q. s., to measure one fluid ounce. A slight deposit only occurred. The soda gave it a flavor strongly resembling that of cloves.

Balsam of Tolu.—Of the five experiments tried for suspending balsam of tolu in aqueous mixtures, the following was the most successful:—One drachm of the balsam was triturated with half a drachm of carbonate of soda and a few drops of water, until of a smooth consistence; it was then made into an emulsion with one drachm each of sugar and gum arabic, and a sufficient quantity of water to make one fluid ounce. A slight deposit occurred.

Pills of Iron by Hydrogen, and other insoluble substances, can readily be made into a tough mass of proper consistence, by the use of a small portion of powdered tragacanth with honey. Pills containing camphor may be readily made by using soap and honey as excipients, unless these are contra-indicated by the accompanying constituents of the prescription.

Sugar-coating Pills.—First moisten the pills with a strong solution of balsam of tolu in ether or chloroform, throwing them immediately into a box containing sugar in a very fine powder, and shaking the box for a few minutes.

ON CHLOROFORMIC SOLUTION OF GUTTA PERCHA.

The same Journal publishes in advance of the forthcoming edition of the *Pharmacopœia*, the following formula for a colorless solution of gutta percha in chloroform, remarking that Mr. William Hodgson, Jr., first introduced a dark-colored impure solution as an application for abraded surfaces, and subsequently ascertained a method of depriving the solution of color, so as to yield by evaporation a colorless layer when applied to the skin. At the request of Dr. George B. Wood, Mr. H. cheerfully communicated his formula for the use of the *Pharmacopœia* Committee, with whose sanction it is now published.

Take of Gutta Percha, in small slices, an ounce and a half, Chloroform, twelve fluid ounces, Carbonate of Lead, in fine powder, two ounces. To eight fluid ounces of the chloroform contained in a bottle, add the gutta percha, and

shake occasionally till it is dissolved; then add the carbonate of lead, previously mixed smoothly with the remainder of the chloroform, and having shaken the whole thoroughly together, several times, at intervals of half an hour, set the mixture aside and let it stand for ten days, or until the insoluble matter has subsided, and the solution has become limpid, and either colorless or of a light straw color. Lastly, decant, and keep the solution in a glass-stopped bottle.

OLEUM GOSSYPII (COTTON SEED-OIL).

The immense facilities for the manufacture of this oil, and the low price at which it may be procured, induced W. H. Weatherly, of Frechold, New Jersey, to select it as a subject for an Inaugural Essay presented to the Philadelphia College of Pharmacy. The oil is obtained from the seed by expression (a process similar to that for obtaining linseed oil), and as found in the market, is of four qualities, viz. crude, clarified, refined, and winter-bleached. With the last named quality, the writer conducted some experiments, with the view of ascertaining how far it may be substituted for the more expensive oils in our pharmaceutical preparations. In substituting it for oil of almonds in unguentum aquæ rosæ, it made a perfectly smooth, white ointment, in no way inferior to the official, and keeping equally as well. It was quite as successfully substituted for olive oil in ceratum plumbi subacetatis, and for neatsfoot oil in unguentum hydrargyri nitratis. In making the ointment, it was found necessary not to heat the oil and lard too hot, else, upon adding the nitrate of mercury, a deposit of a soft resinous consistence will be thrown down, evidently containing a portion of the mercury. If the oil be too cold, no effervescence will occur upon adding the nitrate of mercury, and it will be found to remain too soft, almost liquid. If carefully prepared, the result is a perfectly smooth, uniform ointment, of a rich orange color, and of proper consistence, which it will be found to keep a great length of time. In using it for preparing emplastrum plumbi, some very pure litharge was procured, and the operation conducted with a great amount of care. The result was a perfectly uniform plaster, in which every particle of litharge was combined; but it would not acquire the proper consistence. It was substituted for olive oil in ceratum cetacei, linimentum ammoniæ, and l. camphoræ, making in each instance a preparation quite equal to the official. Its specific gravity is .921; it is insoluble in alcohol, soluble in chloroform in all proportions, and in not less than its own bulk of ether. Sulphuric acid turns it to a deep red color, almost a brown. Nitric and hydrochloric acids have no effect upon it either hot or cold. If the oil be heated much above the boiling point, it will take fire and burn with a reddish flame, giving off but little smoke; and if the heat be removed, the color of the flame will gradually change to a pale blue, similar to that of burning alcohol, and finally die out, leaving part of the oil unconsumed. Being a domestic oil, always pure, and about one half the price of olive oil, it might make a valuable addition to our official list.

CRUELTY TO ANIMALS.—Earl Cowley had the honor of presenting to the Emperor of France, on Sunday last, a deputation from the Society for the Protection of Animals, of London, when they presented to his Majesty an address from the Society. The deputation was composed of General Sir John Scott Lillie, Mr. Gurney, M.P., Mr. John Curling, and the Rev. Thomas Jackson. The deputation called the attention of his Majesty to the subject of vivisection, which has long occupied the attention of the Paris Society for the Protection of Animals, and of other similar Societies in Europe. The Emperor, without wishing to prejudice the scientific part of the question, assured the deputation that an inquiry should be instituted in the matter.—*Dublin Medical Press.*

Dr. Fischer states (*Wiener Allg. Zeit.*), that vomiting after the inhalation of chloroform may be prevented by a glass of wine, taken before the anæsthetic is administered.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, April 10, 1861.

DR. A. C. POST, PRESIDENT, IN THE CHAIR.
(Continued from page 361.)

PERFORATING ULCER OF STOMACH.

DR. FINNELL exhibited a specimen of perforating ulcer of the stomach, taken from the body of a woman, 30 years of age, the history of whose case, as obtained from her sister, was as follows: About three years ago the patient was suddenly taken ill with a violent pain in the abdomen, accompanied by fever, sick stomach, and other signs of local inflammation. She was confined to her bed for several weeks, but eventually regained her health. Up to two weeks ago she was in the enjoyment seemingly of perfect health; she then complained of a sense of fulness and uneasiness of the stomach, which, after lasting for the better portion of one day, passed away. The day preceding her death she was engaged in household affairs, and was not complaining of any special ailment, when, at 11 o'clock in the forenoon, she was seized with an attack similar to the one she had suffered three years before. A physician being sent for prescribed opiates, which she continued to take during the remainder of that day, with, however, very little relief. She continued to grow worse until the next morning, twenty-four hours after the attack, when she died.

At the *autopsy* the moment the abdomen was laid open, a gush of two or three quarts of purulent fluid followed. Search was then made for the cause of all this, when an opening was discovered in the stomach about midway between the greater and lesser curvature. The ulcer on the peritoneal surface was not larger than a three-cent piece, and seemed as if made by a punch; and the one upon the mucous surface, with which it communicated indirectly, was as large as a twenty-five-cent piece. The tissues in the neighborhood of these ulcers were very much thickened, the result of old inflammatory products. The point of interest in the case was the cause of this deposit of pus, as it evidently was not due to the present inflammation. It was conjectured to be the result of the attack three years previous. In conclusion, Dr. Finnell remarked that this was the sixth specimen of ulcer of the kind which he had presented to the Society, and in one of these the opening had healed, the patient dying of another disease. In only two the opening was upon the posterior surface. All but one were females.

DR. SANDS thought that the larger ulcer was the only one which perforated the stomach proper, while the smaller opening only traversed a layer of exudation.

EPITHELIAL CANCER OF TONGUE;—ECRASEUR.

DR. PARKER presented a portion of the anterior half of the tongue, which he removed from a gentleman, 53 years of age, a week ago that day. The disease first commenced as a small tumor on the left side of the tongue, about midway between its tip and a point opposite the last molar tooth. When the swelling had continued for some time, and grew larger, he consulted a physician, who prescribed astringents, and arsenic and bromides internally, but without any good effect. Dr. Parker saw him a week ago last Saturday, and found a large warty-looking tumor occupying nearly the whole of the left side of the tongue. The difficulty seemed to be entirely of a local character, none of the glands in the neighborhood having been involved. Dr. Parker advised an operation. Dr. Buck, who afterwards saw the case, came to the same conclusion, and the patient consenting Dr. Parker removed the mass. A trocar and canula was carried through the centre of the tongue from below upwards, entirely behind the diseased portion. By means of the canula a portion of iron wire was passed

through, the ecraseur applied, cutting through the substance of the tongue laterally towards the right. This part of the operation occupied about seven minutes. The common ecraseur was then used, and the remaining portion of the organ cut through; this procedure occupied about twenty-one minutes. Some considerable difficulty followed from hemorrhage, which was arrested by the application of cold. Dr. Parker stated that the ecraseur in these cases, according to his experience, could not be relied upon to prevent hemorrhage. The patient after the operation did remarkably well. The mass proved, on microscopic examination, to be of the character of epithelial cancer, but inasmuch as none of the parts in the neighborhood were involved, a favorable prognosis was given.

HYDATID CYST;—ECHINOCOCCUS HOMINIS.

DR. SANDS exhibited a hydatid cyst removed from the neck of a lady by Dr. Parker. The lady from whom the tumor was removed presented a small swelling at the upper and left side of the neck, near the angle of the jaw, which had existed for seven years. Various opinions had been expressed as to the nature of the tumor by different surgeons in different countries, some advising its removal and others not. Dr. Parker saw the patient a short time since, and removed the tumor without any difficulty. An incision about 1½ inches in length, parallel with the inner border of the sterno-cleido mastoid muscle, was made through the integuments and superficial fascia, when the cyst came into view. The matter of interest in connexion with the tumor is its nature, it being a hydatid cyst similar to that seen in the substance of the liver and other internal organs. The cyst wall was composed of fifteen or twenty layers of granular material, while the internal surface of the cyst was filled with a soft, solid, granular substance. The granular substance being placed under the microscope displayed a great number of the *Echinococcus hominis*. These were very perfect in their outline; some of their hooks were retracted, while others protruded.

The Society then adjourned.

Correspondence.

THE LUNACY BILL.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—The remarks which accompanied a synopsis of this Bill, which you presented to your readers under date March 30, seem to give an incomplete view in some respects of its spirit and intention. Regarding it as very desirable that there should be a concentrated and harmonious effort to accomplish an object so generally considered as being meritorious in every point, I beg leave to make the following statements:

It was the intention and design of the movers in this matter, now more than two years since, to confine the duties of the proposed Commission to insanity alone, under the impression that there was enough to engage the undivided attention of *one* competent physician. A Bill, however, was framed and presented in the Senate by our very worthy friend, Senator P. P. MURPHY, which extended the duties of the Commission to *non-legitimate* purposes, and, so much so, that insanity was made a secondary matter, and quite lost sight of, so far as the establishing of a uniform supervision in the county establishments and public asylums is concerned. I believe the Bill never progressed beyond its first reading.

In relation to the Bill now before us, if the sanitary provisions referred to in your editorial remarks were contained in section seven, it would, doubtless, require the time of two or more Commissioners to perform its duties; but it was concluded by the framers of *this* Bill, as we understand

it, and after much deliberation, that the public mind was not prepared to extend the liberality necessary for defraying the expenses of *such* a Commission; and hence it was thought advisable to restrict its limits, until the whole can be accomplished.

It will be noticed then that in section seventh of the Bill, the visits to "all almshouses, poorhouses, lunatic asylums, and jails" are to be made, only for the purpose "of ascertaining the number of insane inmates," and that "the methods of treatment, the general condition and wants of such establishments" refer only to that unfortunate class; and that no other individuals are alluded to in the remotest manner in any other part of the Bill. If there is any ambiguity in this section, the framers were unfortunate in their expression. On the contrary, if it had been intended to so extend the duties of the Commission, as to provide for the supervision intimated, the whole countenance of the Bill would have presented a different expression.

If it were possible to procure an appropriation sufficiently large to cover the whole ground of pauperism at once, and which would support a requisite number of commissioners to do the work, there could certainly be no valid objection, and I would gladly give it my hearty sanction and support. It is to be hoped that this will ultimately be accomplished.

Whichever plan is decided upon, it is to be hoped that, before another meeting of the Legislature, it may be fully matured, that it may be established by that body.

It is unfortunate for humanity that Mr. Bingham (as you intimated, April 20th) should have strangled this Bill in the Assembly. It was indeed unfortunate for him to assume that the legal profession is fully competent to investigate a case of insanity of any shade; and hence the want of necessity for that part of the Bill that refers to the insane criminal.

The question then may be with confidence asked, whether the medical profession is not as capable to judge of the merits of any legal code as the men that have made it a study for years?

But this is not all; the mystery that is involved in the connexion of mind and matter has not been solved by any living man. The effects only of the operations of the one, upon the other inversely, have been the study of the ablest minds for centuries, and the light reflected by such labor, enables the *physician* of the present day to arrive at certain conclusions and standpoints, peculiar to his own position in the field of science.

In fact, the bench and the bar, the courts and the jury, are looking to the medical profession for light and direction in this matter, and although the delay is unfortunate, it will nevertheless, we hope, arouse a more vigilant and harmonious action to secure its success in the future.

Besides the demands of humanity and justice, much more, in a pecuniary point, than the expenses to support the Commission would be saved to the counties in the aggregate.

Much might be said confirmatory of this fact; for it is notorious that within a short time, in one single case, it has cost the county of Genesee enough to support a Commission for a term of years, which would have been averted, if the insanity could have been decided by a Commission before trial; and which, after conviction upon the fifth trial, was decided by a special Commission made by Governor MORGAN, Drs. HALL and GRAY.

Since that time, in the case of CURRY, conviction was obtained, and the gallows erected for his execution, and it was only with great vigilance prevented.

Here, too, Governor MORGAN appointed a Special Commission, composed of Doctors RANNEY and BROWN, who detected sufficient unsoundness of mind to procure a commutation.

It is to be recorded here with great satisfaction to humanity, and triumph to science, that these physicians, through their expertness and skill, saved the lives of two irresponsible beings.

In those two cases, the shade of insanity was light and the medical testimony upon trial conflicting; which it is too well known is not an uncommon thing, and that too, from unavoidable circumstances, under the present arrangement of things. But in both instances, after a few months' incarceration, they were transferred to the Asylum.

Yours, etc.

L. B. C.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—The following brief notes of a case, which occurred here recently, will be interesting perhaps in connexion with the unfortunate death of your late talented contributor, Dr. E. J. Fountain, of Iowa.

G. P., aged 48, a stout, plethoric individual, of intemperate habits, applied to me a few weeks ago, complaining of disorder of the stomach, but especially of soreness of the gums, and looseness of the teeth, which, he was afraid, would drop out. The incisor teeth were quite movable in their sockets, and the gums were livid, spongy, and much tumefied. He had taken no mercury, and had been living as well as usual. I prescribed three powders, each containing three drachms of Squibb's chlorate of potash, with directions to dissolve each powder in a pint of water and drink it in twenty-four hours; doing the same with each powder. As usual with this class of patients, he managed to misunderstand or forget the directions, and so took the three pints, containing nine drachms, in twenty-one hours. He called me in the following day complaining of nausea; he vomited after taking the *last* wineglassful of the solution; but after no other dose. He said, however, that his gums were decidedly better. The sickness continued for a few hours, then subsided spontaneously, and his mouth was in a healthy state in a few days with no further treatment.

It will be remembered that Dr. Fountain was killed by an ounce of the medicine taken at one dose.

FREDERICK D. LENTE.

COLD SPRING, May 22, 1861.

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

January 22.—Professor Simpson mentioned rather a novel way of expediting labor when the head was resting on the perineum and the pains were insufficient to complete the delivery. He said that it was so tantalizing to see the head advance every pain and then recede by the resilient force of the tissues, that one practitioner, to his certain knowledge, getting impatient at this delay, and having no forceps, actually stuck a fork into the foetal scalp so as to be able to prevent its receding at the conclusion of every pain. He saw the case in consequence of the occurrence of sloughing from this unjustifiable *forking* of the poor innocent. Delivery can often be accomplished immediately in these cases by passing a forefinger up the rectum and hooking it over the brow or supra-orbital arch. In this way the receding of the head at the end of the pain can easily be prevented, and then the next one or two pains will suffice to expel the head. He narrated a case, where he had been called by two practitioners to apply the forceps, and had immediately procured delivery in this way. The head must be well down, else the supra-orbital ridge cannot be reached by the forefinger. Dr. Geo. T. Elliot's long forceps he commended highly, although thinking that there was but little danger of over-compression of the foetal head; less danger with the long than with the short forceps. The fillet appeared to be dangerous and inefficient, and a case was narrated where a foetus was decapitated by its use. The vectis he had never been able to do any good with.

January 24.—Professor Syme stated that the case of injury to the brain, which I have recently reported, had, after three weeks without a bad symptom, suddenly turned bad; head symptoms of a threatening character had begun to show themselves, and a fungus cerebri had appeared. A

housemaid's knee of large size was punctured, the serum drawn off, and tr. iodine thrown in and allowed to remain, the sac being violently shaken. This treatment, Professor S. remarked, was suited for cases of long standing, large size, and indurated feel; for those of smaller size and more recent origin, simple evacuation of the serum and a blister was sufficient. A cancerous ulcer upon the side and root of the nose was shown, which had been much benefited by the application of chlor. zinc and flour, equal parts. To allay pain, give opiate one half-hour before the application. When a large cancerous mass has to be removed, sulphuric acid mixed with saw-dust or some such recipient should be used. It is, however, difficult to limit its action. A man was now shown who had a malignant ulcer on the groin, which had been growing for nine years. As it was situated directly over the large vessels, Professor S. directed the application of chloride of zinc to it. The great fetor was mentioned as, in some degree, diagnostic. A young man was next shown who, five months ago, had a severe fall, and was supposed to have broken a rib. A fortnight ago he applied to Professor S., with a tumor in the side, the character of which was doubtful; now, it was plainly an abscess, and on being opened discharged a large amount of bland pus. It was freely opened, after that Professor S. had made a small puncture into it, and inserting his forefinger therein, ascertained that it was not connected with any diseased bone or visceral disease. A large bunion gave the Professor opportunity to remark that the disease was irritation of the bursa mucosa and not primarily disease of the bone or of the joint. Where fistulous openings exist, if one is formed between the great toe and the toe next it, the joint is probably diseased. Professor S. said that a student, knowing his interest in the subject, had once sent him quite a number of feet with this affection, which were obtained in some public hospital or workhouse in Ireland, and, by careful examination he had arrived at the opinion stated above. The prevention and cure of this distressing affection was accomplished by one thing only, the having the sole of the shoe the whole width of the tread of the foot.

January 28.—Professor Bennett, to-day, made some very interesting remarks upon the treatment of phthisis. Good diet, plenty of exercise in the open air, and not too mild a climate are the principal and prominent features of his plan. He thinks that nothing is gained by going to a mild climate, but that of course changeable weather is prejudicial. All kinds of cough medicines, opiates et id genus omne, he strongly deprecates, and uses in the way of medicine only codliver oil, and sometimes quinia.

Medical News.

APPOINTMENTS.

NEW YORK HOSPITAL.—Dr. M. K. Hogan, Junior Assistant. BELLEVUE.—Drs. A. L. Lowell and W. H. Martin, Junior Assistants.

ARMY AND NAVAL INTELLIGENCE.

Dr. C. B. White, of Bellevue Hospital, and Drs. H. M. Sprague and F. Town, of the New York Hospital, having passed the Army Medical Board, have been detailed for active service. Dr. White has been ordered to Fortress Monroe, Dr. Town to Washington, and Dr. Sprague to Mexico.

NEW YORK.—Seventy-ninth Regiment, N. Y. S. M.—Surgeon, James Norval. Tenth Regiment Vols.—J. Lovejoy, Surgeon.

Surgeon C. H. Lamb has been ordered to report to the Commander of the Department of Washington for duty as Medical Director and Purveyor for the troops (regulars and militia) in that Department.

Surgeon J. F. Hammond and Assistant Surgeons T. M. Getty and D. L. Magruder have been assigned to duty in the Surgeon-General's office.

Assistant Surgeon R. H. Alexander has been assigned to duty at the Washington Arsenal, D. C.

PROFESSOR HENRY H. SMITH has been appointed by the Governor of Pennsylvania Surgeon-General of the State. A Commission, consisting of three surgeons, has also been appointed to examine candidates for the posts of Surgeon and Assistants in the volunteer Regiments.

SURGEON-GENERAL OF THE UNITED STATES.—Surgeon Finlay has been appointed Surgeon-General, in place of Surgeon Lawson, deceased. The pay is \$2,740 a year.

Steamer *Pocahontas*.—Surgeon, J. S. Kitchen. *Steam Frigate Susquehanna*.—Surgeon, Joseph Beale; Assistant Surgeon, Chas. Martin. *U. S. Sloop of War Vandalia*.—Charles Everfield, Surgeon; Henry F. McHenry, Asst.

SAVANNAH JOURNAL OF MEDICINE.—Dr. Alfred B. Tucker has succeeded Dr. Juriah Harriss in the editorial management of this journal, which has also been changed to a bi-monthly. Dr. R. D. Arnold is associate editor.

The meeting of the Medical Society of Pennsylvania, which was to have been held at Pittsburgh, has been postponed for one year.

SOUTHERN MEDICAL ASSOCIATION.—The following is one of a series of Resolutions passed at the last meeting of the Medical Association of the State of Georgia, held at Atlanta on the 10th and 11th of April:—

"Resolved, That in accordance with the foregoing preamble and resolutions, this Association will be no longer represented in the American Medical Association, and hereby declare its complete and final separation from that body."

The Secretary was directed to correspond with the State medical organizations within the limits of the Confederate States, with the view of organizing a *Southern Medical Association*.

FOREIGN ITEMS.—Dr. Jacob, editor of the *Dublin Medical Press*, lately was presented with a beautiful bronze medal. On one side it bears the portrait of the author, with the word "Jacob," while on the other side is the following inscription: "Arthur Jacob, M.D., F.R.C.S., Prof. of Anat. and Phys., Royal College of Surg. in Ireland, in commemoration of eminent services rendered to Science and the Medical Profession in Ireland, 1860."—Dr. Henry Bennet, after two years' residence in Italy, is sufficiently recovered to return to the active duties of his profession.—Professor William H. Porter, one of the surgeons of the Meath Hospital, died suddenly in Dublin on the 27th of April.—Mr. Noah Fox, one of the medical officers of the Nottingham Union Workhouse, committed suicide by laudanum; intemperance is supposed to have caused the act.—An inquest was held at Limerick, May 9, on the body of a man who died suddenly, after having had a Turkish bath at Dr. Barter's establishment. On post-mortem examination, it was ascertained that death was caused by the rupture of an aneurism, and the jury accordingly rendered a verdict, "that the deceased came by his death from natural causes, and that no blame was to be attached to the bath nor to any one connected therewith." In answer to a juror, Mr. Barter said that from the returns received by him from all the baths with which he was connected, the amount of baths taken daily was 300, and since they had been established in Limerick, 9,000 had been taken. He was in the habit of putting into the bath patients suffering from every organic disease, except aneurism, with impunity and with the most beneficial results.

EPIDEMIOLOGICAL RECORD.

SMALL-POX, measles, and diphtheria, are prevailing among the recruits at one of the regimental encampments near this city. Diphtheria also is prevailing to some extent in all the ranks of society in this city, but the malady is more mild at present than formerly among us. Will our correspondents keep us informed of the progress and character of this and other epidemic and endemic diseases? We design to make early and accurate records of the progress of diseases in the Army.

SMALL-POX is making sad havoc at Harper's Ferry and elsewhere among the *Confederate* troops. Typhoid fever and dysentery have also appeared in a fatal form at various points in the Southern States.

Original Lectures.

A CLINICAL LECTURE ON CHRONIC MYELITIS.

DELIVERED IN THE BALTIMORE INFIRMARY, MARCH 16, 1861.

BY

WILLIAM A. HAMMOND, M.D.,

PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE UNIVERSITY OF MARYLAND, SURGEON TO AND LECTURER ON CLINICAL SURGERY IN THE BALTIMORE INFIRMARY.

GENTLEMEN: Whether we regard them from a physiological or pathological point of view, the diseases of the nervous system yield to no others which affect the human system in interest and importance. Within the last few years much has been done by scientific physicians towards their elucidation; and as the case before us enables me to bring under your notice some of the principles by which we should be guided in diagnosing and treating one of the most serious of the class of diseases referred to, I ask your attention to the remarks which I shall have to make.

Ellen McAllister, aged 22 years, was admitted into the infirmary March 14th with paraplegia. She was born in Ireland, of healthy parents, and, so far as she knows, the health of her family has been good. She has resided in Baltimore seven years, and is by occupation a weaver. Has been married four years, and has one child three years old. Has always enjoyed good health till her present illness, except that in her girlhood she was affected to some extent with rheumatism and occasional epistaxis. She is a sober and intelligent young woman.

Eleven months ago, whilst in a state of somnambulism, she fell from a second-story window, and struck the hand-rail of a porch in her descent, injuring her back at about the junction of the last lumbar vertebra with the sacrum. The immediate consequences were pain in that region, soreness across the abdomen, and the passage of bloody urine. This excretion for seven months was drawn off with the catheter, after which time the bladder in a measure recovered its contractile power, but soon lost it; the sphincter also becoming paralysed. Severe cough likewise ensued, and from having been exceedingly regular with her catamenia, complete suppression of this flow took place. There was slight paralysis of the lower extremities from the time of the reception of the injury. This continued to increase till there was considerable difficulty experienced in walking, or even in standing. There was also deficient sensibility in both lower extremities, and likewise over the sacral region. Soon after the injury, the sphincter ani lost its power. She has had more or less numbness and spasm in her lower extremities from the first. Previous to her admission, she had been treated with strychnia, and has had cups applied to the lumbar and sacral regions. Such is the previous history of this patient, as I have been able to ascertain it. Now what is her present condition? In the first place, there is complete paralysis of the sphincters of the bladder and rectum. Her urine is constantly flowing from her, and the moment the feces enter the rectum they are evacuated. Upon introducing the finger into the bowel it is found to be entirely relaxed, and, in fact, three or four fingers can be inserted with ease. Her lower extremities are partially paralysed. Although she can walk yet, she does so with difficulty. Frequent cramps and almost constant formication are present, and there are occasional startings of the limbs without her being conscious that such actions are taking place. There is a good deal of pain in the sacral region, and, as is usual in such cases, a large ulcer exists in this situation.

Upon examining with the æsthesiometer, in order to ascertain the relative sensibility of different portions of the cutaneous surface, I find that upon the anterior surface of the lower extremities, except externally below the knee,

there is no diminution; but over the greater part of the posterior region, when the points of the instrument are separated to the extent of five inches, she is conscious of only a single sensation; she feels but the one point. This is the case especially in all that part of the thigh situated below the gluteal region, and occupying the median portion of the posterior surface. Laterally, sensation is good, as it is also on the external and internal surfaces of the leg. Over the heel sensibility is very deficient, and over the gluteal muscles and sacrum is entirely abolished.

Before proceeding to inquire further into the case, I desire to call your attention to the instrument I have used for estimating the relative sensibility of different parts of the cutaneous surface, and the principle of its action.

Weber and Valentin have made very extensive observations relative to the tactile discriminating power of different parts of the skin. They found that if the legs of a pair of dividers were placed upon various portions of the cutaneous surface, the distances at which the two points could be distinguished varied very materially. For instance, as I now show you, if I take the hand of one of you, and impress the points of this instrument upon the extremity of the index finger, you are enabled to appreciate the two sensations excited by the two points when these are only separated to the extent of less than a line; but if I take the back of your hand, and separate the points to the distance of nearly half an inch, you are only conscious of a single sensation—you feel but one point. Upon the leg, the chest, the back, &c., the power to discriminate is still less; but on the tip of the tongue it is greater than on any other part of the body. Weber and Valentin embodied their results in extensive tables, in which the maximum, minimum, and average tactile discriminating power for various portions of the body are shown.

Now, according to Weber, we are to understand that this method does not give the actual absolute sensibility of the part; it shows only the relative capacity for appreciating multiple sensations of similar character. In other words, it indicates the relative number of nerves distributed to the parts examined. We shall not now stop to discuss this matter; it is sufficient for us to know that the two properties above mentioned are very intimately connected, and that acuteness of sensation is directly proportional to the number of nerves distributed to a part. Owing to this fact, the æsthesiometer has been employed in certain cases of paralysis; and it has been ascertained by Sieveking, Brown-Séquard, Ogle, and others, that in such instances the legs of the compasses may be separated to a much greater extent than when the limb is in a normal condition, without the two points being perceived.

The instrument devised by Dr. Sieveking for the purpose is essentially a beam compass, consisting of a graduated bar, having a fixed point at one end, and another capable of being moved along the bar. Brown-Séquard employs a similar instrument, and Ogle has invented a very complicated apparatus, and an index traversing it. The instrument which I show you is, I think, preferable to any other, and is of the same form as the carpenter's graduated compass. The scale is divided into tenths of an inch, and is capable of measuring four and a half inches. It is much less troublesome than measuring the distances in the rule, and more convenient than Sieveking's or Ogle's arrangement.

But to return to our patient. As I have said, I find that applying the æsthesiometer to the anterior surface of her legs and thighs, to those parts supplied by the branches of the lumbar plexus, there is no diminution of sensibility. She appreciates the two points when only separated to the extent of half an inch, but when I apply it to the posterior surface—to the parts supplied by the sacral plexus, she is conscious of but one impression. Even when the points are separated to the extent of five inches, and then they are not distinctly felt over the gluteal and sacral regions, she cannot feel them at all.

Now the distinction to be drawn from the circumstances brought forward is, that this young woman has some disease

of that portion of the spinal cord from which the sacral plexus arises—the lower portion. We are justified in limiting it to the lower portion, from the fact that the parts supplied by the branches of the lumbar plexus of nerves have not lost their sensibility in the least, and that only those parts to which the sacral plexus sends branches are deficient in sensibility. In addition, we find that the sphincters of the bladder and rectum, which also derive their nervous filaments from this plexus, have lost their contractile power.

Having thus located the disease, we have, in the next place, to ascertain, if we can, its exact nature; and this we shall find to be a much more difficult undertaking. Nevertheless, there are certain principles which are of great service to us in arriving at a correct diagnosis, and these I shall now bring under your notice. For most if not all of them we are indebted to M. Brown-Séquard, who, as you are aware, has long devoted himself to inquiries of this nature, and who has recently published a capital little book upon the subject of paraplegia in general.

We are fully justified, from the history of the case, in assuming that the patient before us is affected with one of three forms of spinal disease. Thus she may have inflammation of the membranes of the cord—spinal meningitis; inflammation of its substance—myelitis; or simple congestion of the cord and its membranes; or it may be that all three of these morbid conditions are present in greater or less degree. Let us proceed to inquire how far and in what manner her condition corresponds with either of these pathological states.

We find that she has a constant pain at the point where the healthy and diseased portions of the cord unite; that there is a sense of constriction also present there; that there is a feeling of numbness almost constantly present in the paralysed portions of the body; and frequently other morbid sensations, such as coldness, burning, formication, &c.; that there are frequent cramps in the muscles of the lower extremity of a more or less permanent character; that there is well marked anesthesia in those portions of the cutaneous surface supplied by the nerves originating from the diseased part of the cord; that the sphincters of the anus and bladder are paralysed, and the normal movements of the lower extremities impeded; that there is a large slough over the sacrum, and that the urine is strongly alkaline. These symptoms, taken collectively, are decidedly indicative of the existence of chronic myelitis; but several of them are likewise met with in the other two affections named. Anesthesia is, however, almost peculiar to myelitis; it being scarcely observed in either uncomplicated meningitis or congestion. Alkalinity of the urine is another symptom of importance, and may, I think, be considered as almost pathognomonic of myelitis.

But it must be extremely rare, if not impossible, that myelitis can be present without the co-existence of congestion of the cord, and some degree of inflammation of its meninges, and therefore we find that condition present which indicates such to be the case. We have the symptoms of all these diseases; those of myelitis predominating, and warranting us in naming the condition as that of myelitis, just as in pleurisy. Although we have some degree of pneumonia present, we do not, unless it is extensive, allow it to interfere with our nomenclature.

Such, gentlemen, is briefly the opinion I have been led to form relative to the case under consideration. I shall not detain you further with symptoms, but pass at once to the principles which are applicable to the treatment.

The first and by far the most important indication to be fulfilled is, to diminish the quantity of blood in the diseased part. It is very seldom that this principle is recognised. Generally the medicine most relied on in the management of paralysis of the lower extremities is strychnia, and much harm is constantly being done by means of this substance. Nothing is more clearly established than that strychnia increases the amount of blood in the spinal cord. It is, therefore, a valuable agent in the treatment of certain forms

of reflex paraplegia, but positively injurious in such organic affections as those I have to-day mentioned to you.

There are medicines, however, which directly lessen the amount of blood in the vessels of the cord by the power which they possess of causing contraction of the organic muscular fibres, which enter into the composition of the coats of the blood-vessels. One of these is ergot, the other belladonna. You are doubtless familiar with examples in which this influence upon the non-striated muscular tissue is exercised by the substances in question. Wharton Jones several years since showed that belladonna when applied locally to the capillaries diminished their calibre, and consequently lessened the amount of blood which they were capable of holding. Its anti-galactic power is due to the fact that it so constricts the capillaries of the mammary glands that the supply of blood from which the milk is secreted is cut off. I have several times distinctly seen the capillaries of the frog's foot contract greatly from the application of a watery solution of belladonna to the web. Other examples will occur to you.

Ergot possesses the same power, and so far as the spinal cord is concerned, in a much greater degree. You all know the influence which this substance exerts upon the organic muscular tissue composing the uterus. Another example of its power is more applicable to the case before us. I refer to the gangrene of the extremities which its prolonged use occasions. This is due to the diminution of the diameter of the capillary blood-vessels, and the consequent deprivation of blood; mortification ensues just as it does when a ligature is placed around the limb.

But I have recently ascertained by actual experiment that ergot does exert the influence in question. I prepared a weak aqueous infusion of this substance, and placed it on the web of a frog's foot under the microscope. In a few moments contraction of the capillaries ensued, and they became so small as not to allow of the passage of the blood corpuscles. This experiment I have repeated several times, and am perfectly satisfied that the result was invariably as I have stated. More, I have frequently injected a small portion of the infusion into the stomach of frogs, and contraction of the capillaries of the web always followed.

Such being the action of belladonna and ergot, they are clearly indicated in the case before us, and I purpose using them both, not together, but alternately, should either seem to lose its effect. I shall consequently order three grains of the ergot in powder, to be given three times a day, and this will be continued as long as the patient appears to be benefited.

In addition, the hot douche is to be used as a means of determining the blood from the cord to the surface. The water should be of the temperature of 98° Fahrenheit, and should be allowed to fall from the height of a few feet upon the naked back over the diseased region, for two or three minutes each day. Dry cups are also serviceable, and will likewise be employed.

The patient will be instructed to avoid the recumbent posture as much as possible, and when necessarily in bed not to take the supine position, but to lie on the side or face, so as to diminish as far as possible the amount of blood in the vessels of the cord.

A large belladonna plaster will be applied to the lower portion of the vertebral column and kept there constantly, except whilst the douche is being used. In this manner we shall obtain the action of the belladonna to some extent without giving it by the mouth.

For the slough over the sacrum, we will make use of the alternate application of sponges dipped in hot and cold water, as recommended by Brown-Séquard, each sponge being kept for a few seconds in contact with the ulcer.

In addition to these measures, I design using galvanism. One pole of the magneto-electric battery will be inserted into the rectum and the other into the bladder, and the current continued for ten or fifteen minutes each day. By this means, I hope to assist in restoring the extremities of these organs to a healthy state of nutrition. For a similar

purpose currents will be passed along the whole course of the lower extremities.

So much for the medicinal treatment. Fresh air, moderate exercise, and a good nutritious diet, will likewise be enjoined. By all these means collectively, I hope to show you, from day to day, marks of improvement in the condition of the patient.*

Original Communications.

DIFFICULT OBSTETRICAL CASES.

By GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING
PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

(Continued from Page 290.)

CASE LXX.—*Forceps for Delay and Danger to Child.—Both did well.*

Bellevue Hospital, Dr. Levi Warren, House Physician. Catharine M'Dermott, Irish, aged 30, first confinement, menstruated last, December 1st, 1855. Labor commenced October 10th, 1856, at 2 P.M., and was terminated at 3 P.M., October 12th. First stage 52 hours; second, 8½ hours; third, 15 minutes.

Strong labor pains for fifty-two hours, which were, however, ineffectual. The os uteri, although not rigid, would then only admit the tips of the fingers. The membranes then ruptured, when the head was found presenting in the first position, and a few strong pains drove it down to the inferior strait, where it remained without advance for eight and a half hours, notwithstanding continued strong uterine efforts. At this time the House Staff could not distinguish the foetal heart, and Dr. Warren sent for me. Having recognised feeble pulsations, I applied the forceps and delivered a living female child weighing eight pounds and a quarter. The perineum was slightly torn, but healed perfectly, and the patient left on the 1st of November, perfectly well.

CASE LXXI.—*Shoulder and Arm Presentation—Cephalic version by external manipulation aided by vectis and forceps ineffectual. Podalic version and perforator. Mother recovered.*

Bellevue; Dr. Charles B. White, House Physician. Ann Power, single, aged 30, second pregnancy. Labor commenced April 10th, 1861, at 11 P.M., terminated 11th, at 6 30 P.M. First stage, twelve hours; second, seven and a half hours. Female child, still-born, weighing six pounds, six ounces, without the brain.

The waters broke at the commencement of labor, but the os was so high up and undilatable that Dr. White did not distinguish the presentation until about eight A.M., on the 11th, when he recognised the left shoulder shortly before the arm came down in the vagina. I was sent for about noon and went immediately, and by external palpation recognised the head above the pubes in front, and determined to endeavor to convert the presentation into a cranial one. Having carried the arm within the uterus above the chin of the child, I succeeded by external manipulation in bringing down the head to the brim in a transverse position, nor did the arm again prolapse. All my efforts, however, even though aided by one blade of the forceps, used as a vectis, failed to flex the head, the fontanelles remaining obstinately in nearly the same plane. Still, hoping that time and the advance of the labor might bring this about, I requested the house physicians to maintain

pressure against the brow (per vaginam) during the uterine contractions, which continued strong and frequent. At five P.M. I returned with Dr. Taylor, and found that nothing had been gained; on the contrary, the anterior fontanelle had descended somewhat. With the approval of Dr. Taylor, I now applied a vectis to the occiput, and made powerful but ineffectual efforts to flex the head. Pulse good. Condition of vagina good. Patient somewhat weak. Gave some wine, and having anesthetized with chloroform, I applied the forceps and endeavored with them to bring about some advance, but failed. As the foetal heart was beating, there remained the necessity for podalic version, which I had avoided all along for fear of the risk to the child. Having delivered the body and arms, the chin was found extended, and so fixed that I could not move it, and I requested Dr. Taylor to try. He made every effort to do so, but did not succeed; so I passed the perforator into the back part of the neck, and sheathing it in these tissues, penetrated the occipital bone, and delivered with the crotchet. For some days afterwards the mother had a quick pulse, with tympanitis, pain, fever, and slight delirium, but entirely recovered by the aid of morphia, turpentine stupes to the abdomen, and warm fomentations to the vulva.

CASE LXXII.—*Rupture of Uterus?—Removal of placenta, and version—Perforator.—Death of mother.*

Dr. Bishop sent for me on the 8th of May last, to Mrs. —, a widow, in labor with her eighth child. The other seven had been born living, with the exception of the last, which was turned by Dr. Bishop for prolapse of the funis. The husband had recently died from Bright's disease.

In this labor, Dr. Bishop had been sent for at 8 A.M., and found the os uteri fully dilated, head presenting (post. font. to left), foetal heart beating, maternal condition good. At half past ten he was called away, and left the patient under the care of Dr. Sheehan. All continued to go on well until about one P.M., when she suddenly complained of great pain in the abdomen, and a sensation as though something had given way. She immediately became very weak, the presenting part receded, and no more uterine contractions took place. There was no hemorrhage, and no vomiting, but nausea, and a disposition to vomit. I saw her with Dr. B. at three o'clock. Pulse 120, feeble, skin cool, no uterine contractions. Abdomen very sensitive to the touch. Head presenting; entirely above the brim in the right iliac fossa, and resting on the pubes and right rim of the true pelvis. Foetal heart inaudible. On introducing my hand above the brim for purposes of exploration, much dark fluid blood escaped. Having introduced my finger into the child's mouth, no closure followed, and near by I recognised a loop of pulseless funis not prolapsed. No laceration of the uterus could be detected. While thus engaged, I found the placenta on the left side of the uterus nearly detached, so I removed it and divided the cord. There was no further loss of blood. It may be well to state here that nothing had been given to expedite the labor, nor had any operative measure been resorted to before the collapse. Believing that rupture of the uterus had occurred, I proceeded with regret to the necessary delivery, and we were obliged to decline the anæsthetic, for which she begged piteously until after the operation was commenced, when she no longer embarrassed us by a single word. We agreed that the perforator should be tried first, and if that failed, then podalic version. Dr. Bishop steadied the head in the right iliac fossa, and I introduced my right hand wholly within the vagina as a guide to the perforator; but the mobility of the head, and the pain from the necessary pressure, caused us to decide on version, and I brought the feet and arms readily enough into the world; but the chin became fixed over the left linea ileo-pectinea, the sagittal suture running transversely.

The child was a male, and of large size; there was no room whatever behind the left acetabulum to push back and flex the chin, and I found it impossible to deliver manually. Dr. Bishop then faithfully made every effort to flex the

* Without going into details, it will be sufficient to state that at this date (May 16, 1861), the patient has recovered full power over the extremities of the bladder and rectum; has improved very much in her ability to walk, and has been entirely cured of the slough over the sacrum. The pain has almost entirely disappeared from the cord, and she is no longer troubled with cramps or numbness of the lower extremities. The ergot is still continued, as are likewise the belladonna plaster and the hot donche. The beneficial effects of the treatment employed are therefore clearly manifest. She will probably soon be discharged from the Infirmary.

chin without success, when I introduced the perforator into the highest part which I could reach, viz. in the posterior part of the neck on the right side, three-quarters of an inch below the tip of the mastoid process, and working the instrument through the sheath of tissues, penetrated the occipital bone. The crotchet, however, failed to advance the head, and accordingly I passed a blunt hook in front of the left sacro-iliac synchondrosis, and turning it in the direction which seemed best adapted to enter the mouth, succeeded in fastening it firmly; when having fractured and brought down the lower jaw without advancing the head, I drew firmly and simultaneously with the crotchet and blunt hook until the brain began to escape freely, and the head came into the world. The uterus contracted immediately and firmly, and careful exploration by two fingers within, and thorough exploration of the posterior uterine wall through the relaxed abdominal walls, failed to furnish me with any evidences of laceration. The patient pronounced herself much better, and we gave her every encouragement. Symptoms of peritonitis soon set in, however, which were actively treated in the usual way, but without effect. The vomiting became of a coffee-ground color, no lochia whatever flowed, and she died on the 12th. No autopsy permitted.

CASE LXXIII.—Arm in the Vagina—Head above to the Right—Child Dead—Perforator—Mother Recovered.

Drs. McClelland and Hall called me in consultation on the 16th of April, 1861, to Mrs. —, who had been long in labor with her second child. The membranes had been ruptured thirty-six hours, and all the waters long since escaped. The brow had originally presented, and had become complicated by the presence of the hand and arm in the vagina. I found the left hand and arm in the vagina, the fingers did not close on mine. Cervix uteri fully dilated, but the circular fibres unusually rigid. Head above to the right, partially in the iliac fossa, and partially overhanging the true pelvis; brow presenting; foetal heart inaudible; uterine contractions good now, and had been so persistently. Pulse good, no tenderness over uterus. The operations to be considered were, 1st, podalic version; 2d, replacement of arm and cephalic version; 3rd, ditto, and delivery by vectis or forceps; 4th, replacement of arm and perforation. The last procedure seemed to me the best adapted to the case, and after Dr. Hall had brought the women under the influence of chloroform, I replaced the head and arm in utero; and then holding the head firmly in position with my left hand applied over the right iliac fossa, I introduced Blob's perforator, and delivered with the crotchet. The uterus contracted well, the placenta came away readily, and the contractions were maintained by ergot.

CASE LXXIV.—Forceps for Delay—Both did well.

Dr. Jones sent for me on the morning of the 29th of April last, to a primipara about four feet high, who had been in labor about thirty-six hours. The waters had been discharged about twenty-four hours before, and no progress had been made for the last twelve. The outlet was well formed, but the conjugate diameter somewhat undersized. The head presented, post. font. between the symphysis and acetabulum, movement of descent not completed. Os uteri thin, rigid, and closely embracing the head; but this, in my opinion, was not the cause of the delay. Considering the duration and character of the labor, the patient's condition was entirely satisfactory. Foetal heart distinct in the usual place on the left side. She preferred not to take any anæsthetic, and I therefore introduced and locked the blades, but when I commenced the strong tractions necessary to draw the head through the brim, she made so great an outcry that I was glad to stop until Dr. Jones had brought her under the influence of chloroform, when I delivered a living male child of average size, very slightly cut over the upper part of the right frontal bone, which was very convex. The point of the corresponding blade reached just to the eye, which was unharmed. In this case a consultation had decided to apply forceps on the evening before, but it was not found practicable.

CASE LXXV.—Forceps—Mother and Child did well.

Rose Hayden, aged 23, 1st, Lying-in Asylum. The Resident Physician, Dr. Wilson, sent for me on the 24th of February last, to this patient. The labor had commenced on the 21st, in the night. During the 22d no progress was made; pains good, morphia. On the morning of the 23rd, the os was not sufficiently dilated to allow the presentation to be made out. By midnight the os was well dilated, and the waters were discharged. The head then rested on the brim anteriorly, and did not dip within the true pelvis. Having elevated the hips and depressed the shoulders, the movement of descent commenced, but the pains now became irregular, and the patient feeble. When I saw her at ten A.M., she had been vomiting a clear green fluid, the head was presenting with the posterior fontanelle to the right acetabulum, os fully dilatable, but had not yet slipped over the head. The greater part of the head was yet in the brim, and the caput succedaneum very large. Foetal heart and uterine souffle most distinct over the left umbilical region. Dr. Wilson brought her under chloroform, when I introduced the first blade readily in front of the left sacro-iliac synchondrosis, but moved it up under the left descending pubic ramus with much difficulty on account of the size of the head. The second could only be introduced after much trouble, and a thicker blade could not have been passed at all; and as it was, I could not introduce it as far as was desirable, and was obliged to withdraw the first somewhat in order to lock them. The cervix uteri did not interfere, and both blades were well within it. I moved the pivot to the second hole, but found it necessary to slip it to the first. The delivery was difficult, and required all my force, but the tractions were chiefly made by the transverse bars from fear of injuring the foetal head, which I knew to be exposed to danger from the position of the blades, and necessity for altering the pivot. The child was born living, weighed eight and a half pounds; the left angle of the frontal bone was marked with the forceps; the point of the corresponding blade resting over that eye, which was uninjured. Skin behind the right ear slightly abraded; no paralysis of portio dura. Perineum not at all lacerated. Placenta came away readily. Ergot, and then morphia. Both recovered nicely.

CASE LXXVI.—Complete Extrusion of the Uterus at Term—Replacement—Successful Labor—No subsequent Inconvenience—And subsequent Successful Gestation.

I am indebted to Dr. J. G. Sewall for the report of this interesting case, to which I was called by Dr. J. H. Watts and himself. Dr. Mortimer G. Porter was also present.

"Ann Carroll, about thirty years of age, fell in labor at term with her fourth child on the 28th of Jan. 1859, when she noticed for the first time, as she avers, a subsidence of the womb. The parturient efforts lingeringly progressed for forty-eight hours, the uterus making meanwhile further and still further advances, till now it had completely prolapsed, and hung between the thighs, its mouth being at least nine inches from the vulva, and nearly closed. The vagina was of course everted, having a deep red, thickened, and corrugated look, and was traversed in all directions by tortuous and swollen veins. Its sensibility was considerably augmented. This state of things continued for four or five hours, causing much distress, but giving rise to no nervous shock or general prostration, when without especial difficulty it was fully returned by Dr. Geo. T. Elliot, chloroform having been first administered. The labor pains, which had been suspended, now recurred moderately, and in about twenty hours the labor was concluded by the natural efforts alone. The child was very small, scarcely two pounds in weight, and died within an hour of its birth. The amniotic fluid was largely in excess. Nothing unusual occurred subsequently save that she was confined to her bed for three weeks, complaining chiefly of pain and weakness in the back, and was afterwards rather slow in regaining her health. March 12, 1861.—I (Dr. Sewall) saw Mrs. Carroll to-day for the first time since the above related occurrence. She is in good health, and nursing her sixth

child, now five months old, and her only surviving one. She reports that all were born at term, save the second, which was a seven months child, and with the exception of the one she now has, and another that lived for six months, all died within two or three days after their birth. She has had no difficulty in her last confinement except its having been lingering, as indeed all have been. She has never been delivered with instruments, and positively affirms that she has had no falling of the womb before or since, or affection of that organ of any sort, and knows no cause for the prolapse. It should be added that her husband reported to Dr. J. H. Watts, who first saw her after the accident, that he had for some time before noted an obstruction to the complete performance of the act of copulation."

OPERATION

FOR THE REMOVAL OF A LOOSE CARTILAGE FROM THE KNEE-JOINT.

By J. C. HUTCHISON, M.D.,

PROFESSOR OF OPERATIVE SURGERY AND SURGICAL ANATOMY, LONG ISLAND COLLEGE HOSPITAL, SURGEON TO THE BROOKLYN CITY HOSPITAL, ETC.

MR. H. S. TAYLOR, æt. 20, with no constitutional diathesis, fell, while exercising in a gymnasium three years ago, and struck the inner side of his right knee against the floor. This gave him so little inconvenience that he continued his exercise until he wrenched his knee on the same evening. He suffered considerable pain in the knee-joint during the night, but went to his business as usual on the following day, and had no further trouble with it until he received a second injury on the evening of July 2, 1860. At this time, while engaged in boxing, his knee suddenly gave way with a loud snap (distinctly heard by himself and his brother, who is a physician), and he fell to the floor; he had some pain in the joint, which continued during the night. He went out on the next day, and experienced very little pain in walking except in going up and down stairs and in bending the knee, which was somewhat swollen. The three following days he remained at home and received appropriate treatment from his brother, Dr. Frederick Taylor.

He came under my observation July 19. The joint was moderately distended with fluid, no pain on pressure, temperature not increased, slight limp, leg could not be bent beyond an angle of 30° without pain. The history of the case made me suspect a loose body in the joint, but I was unable to detect it until after the swelling had been reduced by rest, pressure over the joint with compressed sponge, &c.

After ten days' rest he walked about with a knee-cap applied, but the swelling soon returned and locomotion was occasionally suddenly arrested by the foreign body getting between the articular extremities of the bones. The cartilage slipped from one side of the joint to the other under the patella, and as it could be fixed by the finger in the *cul de sac* on the inner side, I endeavored to retain it there by a compress, hoping that it might contract adhesions and give rise to no further inconvenience. Having failed in this, and after he had suffered several attacks of inflammation of the joint, I advised its removal, at the same time explaining the dangers of the operation. The case was now seen by Dr. John Haslett, late Surgeon in the United States Navy, Dr. J. M. Minor, Professor F. H. Hamilton, and Professor W. Parker, who concurred in the advice which I had given.

Preparatory to the operation the patient was kept in bed for a week with a splint behind the joint, and a bandage from the toes above the knee; his diet was not changed and he took no medicine.

On the 19th October the operation was performed in the presence of Drs. Minor, Haslett, Crane, and Kissam, of the City Hospital, and several other medical gentlemen. As no one but the patient could bring the body to the super-

ficial parts of the joint, he was directed to do so, and after he had fixed it with the fingers on the inner side, at a point corresponding with the junction of the inner condyle of the femur and the head of the tibia, it was held there firmly by Professor Hamilton, while Dr. H. S. Smith administered the anæsthetic with his accustomed skill. I first endeavored to remove the body by a subcutaneous section of the synovial membrane. A tenotomy knife was passed through the skin, about an inch to the inner side of the body, and pushed along the subcutaneous cellular tissue until it reached a point opposite the proximal margin of the foreign substance, when I caused it to enter the joint. The point of the knife grated against the edge of the cartilage, indicating with certainty that the synovial capsule had been entered. I now freely incised the synovial membrane, and endeavored to push the cartilage out of the joint into a pocket made by the instrument in the subcutaneous cellular tissue. Failing in this, the skin was drawn over it tensely from below, an incision three-fourths of an inch in length made directly down upon it, and it was removed without difficulty. The wound in the skin when it was relaxed, did not correspond with the opening in the synovial membrane. No synovial fluids escaped at this time; subsequently, however, while dressing the wound, from want of care in keeping its sides well pressed together, a small quantity escaped, but I do not believe that any air entered the joint. After the hemorrhage, which was considerable, had ceased, the wound was closed with silver sutures and adhesive straps, a back splint applied so as to put the joint at perfect rest, and an evaporating lotion over the dressing.

Six hours after the operation there was considerable swelling in the joint, but no pain: the swelling, which I supposed to be owing to the effusion of blood into the cavity of the joint (?), had entirely disappeared at the end of ten days. The sutures were removed on the sixth day; they had produced some irritation and suppuration. There was slight soreness on pressure over the track of the knife for the first four days, but there was no acceleration of the pulse, and no pain in the joint after the operation, and indeed the patient felt perfectly well in all respects. He was released from bed on the 14th day and directed to wear a knee-cap until the ligaments, which had become relaxed by the prolonged distension of the joint, should resume their normal condition. The functions of the joint are now (December 1), and have been for some time, perfect. The body measured seven-eighths of an inch in length, three-fourths of an inch in width, and three-sixteenths of an inch in thickness; a section of it was made, and on examination under the microscope by Professor John C. Dalton, it was found to be pure cartilage.

Remarks.—The experience afforded by the above case and subsequent reflection, would induce me in future to prefer the *valvular incision*, as made in the above case, to the subcutaneous section as advised by M. Gogrand, Syme, and others. The advantage claimed for the subcutaneous method is, that it obviates the dangers of an external wound to the joint. While I do not believe that with ordinary care the direct or valvular incision is more liable to admit air into the joint than the subcutaneous, the former method is free from the following objections, which pertain to the latter. 1. The subcutaneous operation is more difficult to perform, and requires more time. 2. The danger that the foreign body, which has been pushed out of the articulation and imbedded in the contiguous cellular tissue, will excite inflammation that may extend to the joint. An operation performed in the most skillful manner by one of my colleagues in the Brooklyn City Hospital, for the removal of a fibrous tumor from the vicinity of the knee-joint, was followed by inflammation which extended to the articulation, and rendered amputation necessary. 3. It involves a second operation for the removal of the body from its new bed. Different theories have been held with regard to the origin of loose bodies in the joints, each of which may be true in particular cases. 1. A fibrinous deposit which takes place on the inner surface of the

synovial membrane while in a state of inflammation, afterwards becomes vascular, and increasing in size, it projects into the cavity of the joint and assumes a pediculated character: by some sudden movement the pedicle is severed, and the body becomes loose in the articulation. 2. Hunter believed that they originated from a deposit of coagulated blood, the result of a violent strain or other injury of the joint, which acquired the nature of cartilage and afterwards became separated. 3. They may be caused by the breaking off of cartilage or bone from the articular extremities forming the joint. In a dissecting room specimen of the bones forming the elbow-joint, recently shown me by Prof. March of Albany, there were two loose bodies (bony) which had evidently been broken off from an exuberant growth of bone that surrounded the articular extremities of the humerus, radius, and ulna. 4. The views of Mr. Rainey of their probable origin in the villi of synovial fringes are as follows: * Those parts of a joint least exposed to pressure are covered by epithelium of a very peculiar character. This structure consists of loops and convolutions of capillaries of various degrees of complexity, which are covered by sacculi of basement membrane and project into the joint. From these sacculi numerous others proceed, in which there are no capillaries; sometimes there are several series of these sacculi, attached one series to another, by slender pediculi. This is the apparatus by which synovia is elaborated in all the parts in which this fluid is found; the cellules of these fringes, in the place of elaborating synovia, sometimes take on morbid action, and become the seat of a deposit of cartilage which is converted into imperfectly formed bone; and after they acquire a certain size, the slender pedicle breaks suddenly, and the bodies become loose in the joint.

And Kolliker says,† "The appendages of the synovial fringes enlarging in size and acquiring a firmer consistence, may become detached from their connexion and thus give origin to the so-called *loose cartilages* of joints. They are not developed externally to the synovial membrane, but are excrescences of the membrane itself." This author also agrees with Virchow in regarding many examples of these loose bodies as consisting of fibrinous exudations, and others as consolidated precipitates from the synovia.

The history of the above case, and the nature of the body (pure cartilage) leads me to suspect that a portion of the semilunar cartilage covering the inner side of the head of the tibia was fractured by the first injury, and was completely detached, nearly three years subsequently, by the second.

EXTRA-UTERINE PREGNANCY.

By MAUS ROSA VEDDER, M.D.,

House Physician, Bellevue Hospital.

THE history of the following case is imperfect, owing to the fact that the patient during life was attended by a homœopathist, who failed to note any important points that might have been present. In some unaccountable way he came to the conclusion that the disease which the patient was laboring under was dropsy.

A. B., aged thirty-two years, married eleven years, had menorrhagia about two years ago; menstruated regularly until within eight months, when menstruation ceased; had morning sickness and the usual signs of pregnancy. The movements of the child were perceptible to the mother early in the pregnancy, and sometimes would produce great distress, violent pain in the abdomen, vomiting, faintness, and syncope. Later in the disease, or at about the seventh month, the abdomen was thought to be of unusually large dimensions, and was observed to point in the umbilical region. The patient was greatly emaciated, and the feet were œdematous. About two weeks before her death, the patient was seized with labor pains, which lasted with

greater or less intensity for two or three days. The attack then passed off, to be succeeded at varying intervals by others of a like character. During the last attack, which continued several hours, the abdomen became exceedingly tender on pressure, so much so that the weight of the bedclothes could not be borne; the urine was scanty and high-colored, and was attended by excruciating pain in its expulsion. She died of exhaustion undelivered.

The autopsy was made twenty hours after death, under the direction of Dr. A. M. Vedder of Schenectady. Body much emaciated, abdomen full and greatly distended, feet œdematous. In the right hypochondriac region there was a large, hard, rounded tumor, and in following a line obliquely across the abdomen to the left iliac region, was felt a hard and uneven mass, the former very much like the head, and the latter like the extremities of a fetus. Deep-seated fluctuation could be detected in the umbilical region by palpation. In making an incision through the parietes of the abdomen, there was brought to view a thick, dense, fibrous membrane, extending from the pubes midway to the umbilicus, and in immediate contact by recent adhesion with the peritoneum. Making an incision through this membrane I was greatly surprised to find, by the escape of urine, that I had perforated the bladder, that viscus being adherent to the abdomen, which accounted for the pain during micturition. Peritoneal adhesions, of recent origin, were also found in many parts of the cavity, breaking down easily between the thumb and finger.

Just above the uterus, below the bladder and within the peritoneal sac, was found a large tumor, which apparently filled the entire abdominal cavity. Making an incision through the walls of this tumor, two quarts of dark brownish fluid escaped, together with a quantity of clotted blood, and a fully developed fetus in a perfect state of preservation. The fetus lay upon its right side, obliquely across the spinal column, with the head flexed upon the thorax, the thighs upon the abdomen, and the arms lying lengthwise at the sides. The head occupied the right hypochondriac region, and the feet the left iliac region. After evacuating the contents of the cyst it was found to be composed of two layers, the chorion and amnion, in intimate relation with one another, yet easily separable by gentle traction. Its walls were not in any way connected with the organs of generation, but were adherent, at different points, to the large and small intestines.

The placenta was attached to the sigmoid flexure of the large intestines and the surrounding tissue of the left iliac region. The uterus was much larger than in the unimpregnated state, and on its internal surface presented a very vascular appearance; the cervix was closed by a green, gelatinous, tenacious plug.

The right Fallopian tube and ovary were normal, while the left presented a curious anomaly. No communication existed between the uterus and the ovary, the canal of the tube being completely obliterated. It would be impossible to state whether this impervious condition of the Fallopian tube took place before the impregnation, or in consequence of it. If this point could be ascertained it would be of importance in a physiological point of view.

It may be remarked, that if the Cæsarean section had been performed in this instance, during life, the operator would, in all probability, have carried his incision through the walls of the bladder, and death would have been the inevitable result.

MR. H. F. TALBOT (*Chemical News*) says, that to procure a perfectly homogeneous light of sufficient brightness for any important experiment, it is only requisite to place a lump of common salt upon the wick of a spirit lamp, and to direct a stream of oxygen gas upon the salt by means of a blowpipe. The light emitted is homogeneous and of dazzling brightness. Colored flame can also be made of greater brilliancy by replacing the common salt by the various salts of strontium, barytes, etc.

* Rainey in *Proc. of Lond. Pathol. Soc.* ii. p. 140.

† *Mic. Anat. Lond.* 1860, p. 182.

Reports of Hospitals.

BELLEVUE HOSPITAL.

TWO CASES OF LACERATION OF THE URETHRA.

[Reported by HENRY M. LYMAN, M.D., House-Surgeon.]

CASE I.—Laceration of the Urethra.—Extravasation of Urine.—Death.—Post-mortem Examination.—T. S., a powerful man, forty-seven years of age, and very intemperate in his habits, was admitted to the hospital, March 25, 1861. Two days previously he had received a kick in the perineum from a person with whom he had been drinking. This injury produced so much pain and swelling of the scrotum, attended with such difficulty in voiding urine, that he applied for relief at the hospital. On admission, the appearance of the external organs of generation was somewhat peculiar. The penis was invisible; urine seemed to issue from a cloaca beneath the symphysis pubis; the scrotum was oedematous and of a dusky hue, but not greatly enlarged beyond its normal proportions. On examination, the stump of the penis was found to project nearly an inch in advance of the suspensory ligament, but the glans and anterior portion of the body of the organ were wanting. This condition was accounted for by the statement of the patient, who declared that his penis had been "frozen off," eight years previously, while spending a wintry night upon the pavement of the street. For the numerous scars, however, with which each groin was studded, his recollection could assign no cause whatever!

An attempt was made to introduce a catheter into the bladder, but it was only after several ineffectual efforts that a flexible instrument (No. 3) could be passed. A large quantity of high-colored urine escaped; the catheter was retained in position, and yeast poultices were applied by the advice of Dr. A. B. Mott, the attending surgeon. During the three following days the condition of the patient experienced little alteration, but on the morning of the fourth day it became evident that urine was infiltrated through the tissues of the abdominal parietes. Symptoms of brouchitis appeared; pulse 130; skin moist; tongue red at the tip, and growing brown at the centre. Iron, opium, quinine, and whiskey, were administered internally, and free incisions were made through the skin and superficial fasciæ above the pubes, thus allowing the escape of a turbid, fetid, urinous fluid. *March 30.*—Patient passed a restless night, but appears better than on the preceding evening. Pulse 112, through the day. *March 31.*—A mild delirium became apparent at an early hour of the morning. Pulse 126, feeble. Râles, tracheal. The odor of the breath was extremely offensive. In his delirium the patient withdrew the catheter from his bladder, and it was replaced with the greatest difficulty. At six p.m. the pulse was 132; respiration 58, labored and tracheal; patient no longer attempted to arise, but seemed rapidly sinking into a comatose condition. *April 1.*—Comatose; pulse 120, feeble, varying in frequency during the different quarters of a minute; and thus he continued till two a.m., *April 2*, when life became extinct.

Post-mortem appearances fifty-seven hours after death.—The lower portion of the abdominal parietes appeared black and sloughy. On removing the skin, the areolar tissue as high as the umbilicus was found to be in a state of complete putrefaction. The intestines and peritoneum were everywhere healthy. The bladder was much hypertrophied and corrugated. Between the layers of the deep perineal fascia the membranous portion of the urethra was ruptured, so that a No. 5 catheter could be passed easily into the surrounding areolar tissues, and anteriorly through the tissues at the root of the penis. Nearly an inch in advance of this was a similar opening through the coats of the spongy portions of the urethra. The kidneys were fatty; the right weighed six ounces and a half; the left weighed seven

ounces. The other abdominal viscera and the thoracic organs were not examined. Lines of white lymph followed the track of the blood-vessels in the meninges of the brain. The subarachnoid spaces were filled with serum. The right lateral ventricle contained not more than two drachms of serous fluid, the left ventricle contained a little more. No other morbid appearances were observed.

CASE II. Laceration of the Urethra.—Gangrene of the Scrotum.—Death.—S., a seaman, sixty-three years of age, a powerful man, in the enjoyment of perfect health, fell astride of the edge of a plank, causing a severe bruise of the perineum and scrotum. *May 16, 1861*, eighteen hours after the accident, he applied for relief at the hospital (service of Dr. W. H. Church). The scrotum and penis were immensely swelled and ecchymosed. He had voided urine but once since the accident, and then with great difficulty and pain. There was considerable hemorrhage from the urethra, which, however, ceased immediately upon the introduction of a catheter (No. 10). The injured parts were then fomented with a warm solution of muriate of ammonia, and an opiate injection was ordered. The catheter was allowed to remain in position. *May 17.*—Patient complained of pain from the presence of the catheter, which had been removed, cleaned, and reintroduced. The swelling of the scrotum was very much reduced by the fomentation. The urine was perfectly normal in its quantity and constituents. *May 18.*—The continued presence of the catheter occasioned great distress; and at 11 a.m. the patient experienced a violent chill. Tongue dry; pulse 120. The catheter was then removed; free incisions were made in the depending portion of the scrotum; and a yeast poultice was applied to the part. Ordered one drop of the tincture of aconite, with tincture of hyoscyamus and sulphate of morphia every hour. The urine was drawn with the catheter thrice daily. *May 19.*—Patient much improved. Tongue clean and moist; pulse 96; urine of natural color and quantity. The integument of the penis and scrotum began to present a gangrenous appearance. Ordered to have Port wine, beef tea, and quinine. *May 20.*—At an early hour of the morning the patient attempted to pass his water without waiting for the introduction of a catheter, but was unsuccessful. The catheter was then passed into the urethra, but, meeting some obstruction near the triangular ligament, the instrument was not urged. Placing the patient in a warm bath, urine escaped at once from the meatus. Pulse 88; appetite good; mind cheerful and calm. To take brandy instead of Port wine—one ounce every three hours. 11 p.m., patient desired to void urine, but the catheter could not be introduced beyond the triangular ligament, and when withdrawn its point was blackened, as if by contact with gangrenous tissues. Ordered twenty minims each of liq. potass. and camphor water; an opium suppository was placed in the rectum. Urine soon commenced to flow from the bladder, but the greater portion of it escaped through the gangrenous tissues of the scrotum. From this time no urine was passed through the spongy portion of the urethra. The scrotum and perineum were freely incised, and the urine escaped readily through the openings thus provided. *May 21.*—Patient quiet; pulse 96; tongue disposed to become dry and brown. An ounce of brandy every hour; an egg every three hours; ten grains of Dover's powder at night. *May 22.*—Patient was somewhat uneasy during the night, and vomited the contents of his stomach. Ten drops of dilute nitric acid served to quiet gastric irritation, and improvement was continuous throughout the day. *May 23.*—Pulse 88, regular, soft, and natural; tongue nearly clean; appetite good. At evening, the patient seemed weary, and was ordered to take additional stimulus and an opiate. *May 24.*—Seemed much refreshed. The sloughs were beginning to separate, and the margins presented a very healthy appearance. Pulse 92. The patient again appeared weary at the approach of evening, and his pulse became irritable, varying in frequency from ninety-six beats to one hundred. Opiates and

anodynes. *May 25.*—Seemed cheerful and refreshed. Pulse 92.—Stimulus and nourishment were steadily continued. At evening, he appeared very much as on the preceding evening, and was subjected to similar treatment with an equally favorable result. *May 26.*—Very little change as compared with the appearances observed on the previous morning. At evening, patient was sad and desponding; there was much restlessness, hiccough, and subsultus tendinum, all which, however, were overcome by large and frequent doses of morphine and Hoffman's anodyne, administered in connexion with nourishment and abundant alcoholic stimulus. *May 27, 1.30 A.M.*—Pulse 96; skin and tongue moist; patient quiet and disposed to sleep. Between the hours of two and four he was again restless. From four o'clock he slept quietly till breakfast-time. 7.30 A.M.—Pulse 100, skin and tongue moist. Ate an egg and listened to the reading of the morning paper. 8 A.M.—Pulse more irritable, and varying from one hundred beats to one hundred and six. The sloughs were separating, leaving a healthy surface upon which granulations were arising. The fauces appeared inflamed and covered with patches of greyish exudation. Pupils contracted. 9 A.M.—Patient sleeps. 10 A.M.—Still somnolent; pulse strong and steady, but more frequent; carb. ammon. et quiniæ sulph. 11 A.M.—Pulse 120, and weaker; skin covered with clammy sweat. 11.10 A.M.—Death occurred without a struggle. No post-mortem allowed.

American Medical Times.

SATURDAY, JUNE 15, 1861.

HOSPITALS AND NURSING.

HOSPITALS are demanded alike by the necessities of humanity and public economy, wherever great numbers of people are brought together for residence or continuous duty; but nowhere are such institutions more indispensable, and nowhere is good nursing for their inmates more desirable, than in military life. Domestic life, with its affectionate friendships, furnishes the best of attendance and nursing for the sick; and every family physician recalls with pleasure the many instances of self-forgetful, faithful care of sick ones by intelligent and loving friends and kindred, whose punctilious exactness of attention to the patient's needs, and whose quick compliance with the physician's directions, constituted the essential conditions of recovery from perilous sickness. But in the wards of a Hospital, with ignorant, unskilled, and careless nurses, how different the experience, how unhappy often the results of our medical service! Ten, fifteen, twenty-five per cent., has been no unusual death-rate in military and other imperfectly attended Hospitals; and, too often, in our civil Hospitals the mortality is as needlessly too great, as the air-space and the nursing are too meagre for the sick. All this is wrong, because susceptible of prevention or improvement.

With an army unprecedented in numbers and social worth at this moment rapidly concentrating for action, we may wisely consider what are the principal dangers and defects to which our noble troops are exposed. The paramount necessity of primary and vigilant attention to the proper means for the sanitary protection of the soldier, has been repeatedly discussed and illustrated in our columns, and the vast importance of this subject has been indelibly impressed upon our mind by a personal visit to the encamp-

ments. But while devising the means for preserving health, we must also give attention to the wants of the sick, the wounded, and the dying. And if we bear in mind the fact, that even in times of peace the regular army service presents an annual sick list whose total is far greater than the whole number of officers and soldiers, we may judge how important it is that the character and attendance of Military Hospitals should be made an object of special concern. Even in the peculiarly salubrious military quarters of the United States Army in the harbor of New York, with an average annual force of five hundred and eighty-seven men, the average aggregate annual number on the sick list has been one thousand nine hundred and sixty-seven during the sixteen years ending 1854. Making a liberal allowance for invalids brought in from other stations, the sick list is unquestionably far larger than it would be under a proper hospital administration. Continuing our observations on the prevalence of disease among our troops, we find that during the late war with Mexico, there were six thousand two hundred and fifty-six deaths from *disease*, in our volunteer troops—numbering seventy-three thousand—during a campaign of only ten months; and to this we have to add only six hundred and thirteen killed or lost by wounds, while there is to be added of forces lost to the service as effectually as by death itself, the enormous number of seven thousand two hundred discharged “for disability.” These figures afford sufficient evidence that the army hospitals of the Mexican campaign must have been crowded with the volunteer soldiers, and that our brethren in the field were, as we know, overburdened with duty. Yet, as a venerable medical officer has stated to us, “until the Mexican war, the American Army never had a system of Military Hospital service fit for civilized men.” Had even that service, and the sanitary wants of the army, been sufficiently provided for, the fact would not have been recorded that from disease, “the volunteer force, in an average service of ten months, and with an aggregate strength of seventy-three thousand two hundred and sixty, lost fifteen thousand six hundred and seventeen officers and men, being for the whole service 21.31 per cent., or 2.13 per cent. per month.” (*See COOLEGE'S Statistics of the War with Mexico.*)

We have referred to these statistics simply to illustrate the vast importance of military medical and hospital service, and we have given only an average and fair illustration. Were we to refer to the events of the war of 1812, the Walcheren, Indian, and Peninsular campaigns, or the horrors of the Crimean war, we should find that the rate of admissions to military hospitals in modern times ranges between one hundred and fifty and three hundred per cent. of the entire force *for preventable diseases alone*, and that upon this monstrous percentage of sickness there is a much larger death rate than need or could be if the sick were properly attended and nursed. The statistics relating to the sickness and invaliding of troops are quite as instructive as the records of brilliant conquests and national disasters of war; indeed, the latter have not unfrequently been the natural and inevitable results of preventable and badly attended camp diseases.

Hospitals, whether civil or military, temporary or permanent, are equally subject to the very grave and yet very preventable evils that hinder the proper success of medical means, and increase the perils of disease. But in military and camp hospitals these evils are felt in the greatest intensity. They may be enumerated as follows:

LOCATION AND CONSTRUCTION: First, *Bad Sites, Defective External Ventilation, or Bad Local Climate for a Hospital*; Second, *Insufficient Means for Ventilation*; Third, *Insufficient Air Space for each patient—Overcrowding*; Fourth, *Defective Sewerage*.

ADMINISTRATION: First, *Insufficiency of Medical Attendance*; Second, *Unskilled, ignorant, and careless Nursing*; Third, *Defective Discipline*; Fourth, *Insufficient Attention to Cleanliness*; Fifth, *Imperfect Facilities for Kitchen and Laundry work*; Sixth, *Defective Ward Furniture*; Seventh, *A Defective Dietary*.

It will be admitted that every defect enumerated in the above catalogue may and should be intelligently anticipated and prevented in the establishment and administration of every hospital or sick-room; and it is plainly the duty of the physicians in charge of the sick to give such advice, and to institute such measures, as will certainly prevent these common and dangerous evils. Other defects that are to be seen in the management of hospitals might be mentioned; but with proper attention to those above referred to, the usual rates of mortality in hospital wards would certainly be greatly diminished. And inasmuch as the location and organization of military hospitals must often be of the most hurried and primitive character, nothing can be more desirable than a perfect preparation, on the part of the medical officers of an army, for prompt and judicious action when the emergency arises; for upon their wisdom and efficiency in this matter depend great results.

THE CRIME AGAINST THE ILLEGITIMATE.

In a former number of the *MEDICAL TIMES* we introduced the subject of wet-nursing. Assuming that the practice is a great evil, we endeavored to point out the responsibilities of our profession for its continuance, and the duties of individual physicians with reference to the nurse and her own child. The latter, we stated, is too often set aside to make room for the new and more consequential nursing, helpless and uncared for, except by the unfortunate mother. The thoughtful and humane physician (these qualifying terms are important) will recognise here a duty to perform which it would be criminal to neglect. He will see to it that the infant of the nurse is properly provided for, that it may suffer as little detriment as possible by the necessary but deplorable deprivation of its natural source of nutriment, as well as of maternal care and sympathy.

We have received numerous intimations that this responsibility has hitherto been generally overlooked, but will hereafter be scrupulously regarded. We shall, indeed, be abundantly rewarded if we have succeeded in drawing the attention of a single practitioner to this subject, so as to impress him with the importance of his individual efforts, first, in counteracting the fatal heresy, that a mother may nurse her own offspring or not as she "takes a fancy," and second, when necessity leaves no choice but the selection of a wet-nurse, that he must as tenderly provide for the helpless child of the nurse, as for the little patient under his immediate charge.

Akin to the subject of wet-nursing, and the professional duties and moral obligations of physicians which grow out of it, is the management of illegitimate children. That illegitimacy is an unmitigated evil, no rational person can deny. The very definition of the term implies the moral destruction of one human being, and the physical deteriora-

tion or death of another. The history of the miserable victim of seduction may too often be comprised in three words:—disappointment, abandonment, prostitution; while the history of her offspring may be still more concisely written:—neglect, death. It is a well established fact that this evil widely prevails in this country, and to a deplorable extent in our large towns. This may be inferred from the gradual annual increase of still-births and abortions, and the increasing frequency of applications of unmarried women for admission to our Lying-in Institutions. While it is true that abortions and still-births are by no means generally the result of an effort to escape this disgrace, it cannot be denied that this is very often the case. The experience of medical men tends to prove that, in the majority of instances, this cause underlies the greater number of applications to have abortion produced. Dr. Sanger, who carefully investigated the social condition of the prostitutes of New York, says: "to speak in plain terms, of every hundred children borne by women who are now prostitutes forty-three were born before the mothers (married women or widows) embraced this course of life." Whatever the exact truth may be, it is safe to assume, as above, that illegitimacy is a great and growing social evil in this country.

We do not propose at this time to discuss the various questions which suggest themselves as we review this subject, but simply to consider the following proposition:—What are the claims of the illegitimate?

If this question were to receive a judicial decision, we are aware that this unfortunate class would have their civil privileges abridged; society and even the medical profession seem to regard them in very nearly the same light. When the victim of seduction first realizes her shame and approaching downfall, she readily finds kind friends, and occasionally a very benevolent physician, who are only too anxious to aid her in destroying the testimony of her dishonor. They place the reputation of one human being in contrast with the life of another, and find no difficulty in deciding that the latter should be sacrificed to save the former. If, however, the victim of this conspiracy eludes the toils of the abortionist and his abettors, and at length breathes the vital air, "a living soul," it first sees the light in some secret chamber, or distant asylum ward, as if to be born in due time, according to the laws of nature, was a shame and disgrace.

The crime against the illegitimate begins with its birth, and is generally prosecuted without cessation to its death. Good, religious people, with the most praiseworthy intentions, are anxious to save the mother from ruin, by reinstating her in her former social position. In the accomplishment of this object, one insuperable obstacle must be overcome. This is, such a complete and permanent separation of mother and child as will amount to a perfect obliteration of all natural ties, and render each as independent of the other as if no peculiar relation ever existed between them. In this unhallowed work the physician is a willing accomplice. He watches with painful suspense the last pangs of parturition in the hope that he can announce a still-birth to the attendants, and should the torch of life flicker in the first breath of animation, he makes no special effort to protect and fan its feeble flame. With nimble fingers he prepares it for its swaddling clothes, and so quietly and dexterously passes it out of the room, that its first helpless petition for maternal care and protection never greets a listening mother's ear. The kidnapping is complete, the little out-

law is conveyed by unknown hands to unknown parents, and after a miserable existence of a few weeks, or months, or years, disappears for ever, to the great relief of the anxious participants in the conspiracy against its existence. A few pious ejaculations, as—"Poor, fatherless child! How fortunate that it has died young! What a life of sorrow it has escaped!" and the remembrance of the illegitimate is forgotten.

We have recorded here the history of nine-tenths of the pseudo-orphan children that enter our alms-houses and many of our asylums. Few of them survive the fifth year of their orphanage, while vast numbers perish within the first twelvemonth. Those who chance to reach adult life are too often the subjects of inveterate diseases, and their manhood is marked by the decrepitude and dependence of old age.

The question which we wish to press upon the conscience of every medical man, is:—Has not the child an inalienable right to its mother, let the accidents of its birth be what they may? Admitting that a child may be reared by a nurse, and that between them the physical relations seem properly adapted, still who can doubt that instinctive sympathies and secret influences exist between parent and offspring, highly essential to the growth and symmetrical development of the latter? How often does the nursing languish in the care of the most attentive nurse, as if from some secret grief to which it can give no utterance? Let him who wishes to prove the truth visit our Alms-House, where he may read in the pinched faces of five hundred starving infants, as on so many printed pages, the sorrows, diseases, and lingering death which surely follow maternal desertion.

What then is our plain duty as medical attendants at the birth of illegitimate children, or as advisers of parties who are interested in these unfortunate beings?—for in the great majority of cases a regular physician is consulted at some period. We should not less consider the welfare of the child than that of the mother. Though it may be for her interest and happiness to be restored to society, unsuspected of crime, let us remember that it will doubtless be effected by the destruction of the child. If we sunder the life-giving ties which bind mother and child, and place the latter where it lingers out a miserable existence of a few months or years, are we guilty of a less crime than the mother who grasps her offspring by the throat, and ends its life with its birth? Verily not. Plainly then, our duty is to insist that the mother is responsible for the care and support of her child, let the social consequences to herself be what they may. To abandon her offspring is as unjustifiable as infanticide, and he who advises, aids, or abets such a course, is *particeps criminis*.

THE WEEK.

THE Secretary of War has addressed a letter to the Surgeon-General, expressing his view of the propriety and proper plan of employing the services of women as nurses in the Military Hospitals; and as the Hon. Secretary announces his opinion upon this subject after full conference with the Sanitary Committee from this city, there can be no doubt that the spirit of the War Department is in perfect harmony with that of the Army Sanitary Commission, which has just commenced its sessions at Washington.

The Hon. Secretary's letter contains the following announcement, coupled with an official order:—

"During the present war, the forces being made up chiefly of volunteers, the public sentiment and the humanity of the age require that the services of women as nurses should be made available in the general hospitals, where, except in a very humble department, they have been excluded. As many carefully selected women are in training in the various cities of the loyal states it is the order and wish of the Department that women be adopted or substituted for the men now in the general hospital whenever it can be effected, and that only such women as have received previous training for the purpose be accepted as nurses, except when these can no longer be had. And it is ordered that none be received except those who have presented their application to a lady appointed by the Department to preside over the volunteer women nurses, and who shall have sole authority to select and accept nurses, who are required to be above the age of thirty, with certificates of character and capacity.

"Miss Dix has been appointed superintendent of the women nurses, with the exclusive charge of accepting such as she may deem properly fitted for the service. The transportation, subsistence, and wages of such nurses as may be accepted by her to be paid from such moneys as would be expended in the wages and support of men nurses, or are derived from the usual resources of hospital service."

What more could the friends and families of the volunteers desire! As to the philanthropic ladies who are preparing for the service of the hospitals, their expectations are more than satisfied by this humane and wisely guarded order of the War Department.

THE following Report upon the subject of the selection and preparation of Nurses for the Army Hospitals was adopted early in May, by the Associations in this city having that duty in charge. To answer numerous inquiries, we copy the Report entire:

REPORT OF THE REGISTRATION COMMITTEE, ON THE SELECTION AND PREPARATION OF NURSES FOR THE ARMY.

Adopted by the Board of Managers of the Central Association of Relief.

As there exists at present in the public mind very little positive knowledge in relation to army nursing, it is of great importance that certain facts should be widely circulated, which will show to all, and particularly to the women interested in this subject, what can and what cannot be accomplished by them. It is believed that when the conditions under which army nursing by women is alone possible and proper are fully understood, much of the noble enthusiasm of women, whose sole desire is to serve their country in this momentous crisis, will be directed into other channels, where intelligent and patriotic effort is imperatively called for.

The first fact to be distinctly understood is this, viz. that women have not hitherto been employed in military hospitals as nurses. The nursing is done by soldiers drafted out of the ranks for that purpose, and there is no provision whatever for boarding, paying, or in any way recognising women in the capacity of nurses to sick soldiers. Women, therefore, who now go on to Washington with the idea of nursing, go there on their own responsibility, and find themselves without recognition by the authorities, with no proper provision for their support, and with no work to do. There is now a considerable number of these volunteer nurses in Washington. A letter has already been received by a member of our Board from Miss D. L. Dix, containing an informal request from the authorities that no more volunteer lady nurses be encouraged to come on *until officially requested*, as it would prove embarrassing to have more there at present.

At the same time we have received from the Chief Medical Bureau of the Army, the following statement, to wit:

that the plans in progress under the direction of the Association, and the hospitals of this city, receive the full approbation of the proper authorities, and that the services of the bands of nurses selected and prepared under those plans will be gratefully accepted whenever such services can be consistently called into requisition.

The second fact to be widely known is this, viz. that nursing in military hospitals is a very different thing from nursing in civil hospitals, and still more from private nursing. The class of patients to be nursed, the character of the under nurses, who will always be men, the social isolation of the position, and the absolute necessity of enforcing military discipline, combine to render nursing in military hospitals a service of peculiar difficulty, which can only be accomplished successfully by a select and disciplined band of nurses. Of course, such service could not be rendered by the young and inexperienced, nor by those possessing delicate constitutions, nor by persons of unsteady character. Women in middle life, intelligent, trustworthy, and zealous in their work, are the suitable individuals from whom this band should be formed.

In accordance with the above views, and guided by the printed records of Miss Nightingale's invaluable experience in army nursing, and the testimony of military surgeons, the following regulations for selecting candidates have been drawn up—these regulations being approved by the Hospital Association, to whom they were submitted:

Age.—Each candidate must be between the ages of thirty and forty-five, exceptions being only made in the case of nurses of valuable experience.

Health.—Only women of strong constitutions will be received; chronic disease, or other physical weakness, disqualifying for service.

Character.—Every applicant must present a written testimonial or introduction from a responsible person who can be seen. If the applicant be accepted, these testimonials will be filed, and the name of the referee entered on the register of nurses. Only persons of the highest respectability will be received. While the utmost delicacy is used in such investigation, the requisition of morality, sobriety, honesty, and trustworthiness will be rigidly enforced.

Discipline.—A promise of cordial compliance with all the regulations of the service will be required; the subordination of nurses to the general superintendent, and of all to the medical authorities, being distinctly insisted on. Each candidate will be required to sign the printed regulations of the service.

Dress.—A regulation dress will be appointed by the board, which each nurse will be required to adopt, no hoops being allowed in the service. A committee on outfit will be appointed to superintend the wardrobe of the nursing corps, which will be regulated by the amount of baggage allowed to each individual.

Admission.—Each registered candidate will receive a ticket of admission signed by the Secretary of this Board. She will take this ticket to the Hospital Committee for counter signature, and will then enter upon the course of instruction arranged by Physicians and this Board.

Number of Candidates.—The number of nurses required will necessarily be limited, for each woman must be qualified to act as a chief or head nurse. Ten Bands, or a class of one hundred, will now be enrolled, due notice being given in the daily journals when the lists are full. Should a second corps be needed, the call will again be published in the papers.

The Registration Committee meet daily in the Cooper Institute, in the Philosophical Rooms, on the fourth floor, between the hours of two and four P.M. They earnestly invite all ladies possessing the necessary qualifications to present themselves for registration. Those who are fitted by nature and position to engage in this new and difficult work, will render invaluable aid to their country by devoting themselves to its thorough accomplishment.

Progress of Medical Science.

OPHTHALMOLOGY.

By HENRY D. NOYES, M.D.

The Accommodation of the Eye.—By H. HELMHOLTZ, *Archiv für Ophthalmologie*, B. I., Abth. II., S. 1-51.—The explanation of the problem how the eye adapts itself to vision at different distances, has long been a matter of controversy. At the present time, it is most generally believed to be effected by the action in some way of the ciliary muscle upon the crystalline lens. It is not denied that the iris may co-operate with the ciliary muscle, but that it is not indispensable to this function is proven by a case observed by Prof. Graefe, in which the iris had been torn from its ciliary attachment by an injury; the adjustment of the eye was somewhat impaired, but by no means destroyed. It has also been seen in cases of paralysis of all the external muscles of the globe, the eye being absolutely immovable and the pupil inert, that the accommodation is unhindered. Absence of the crystalline lens, as after extraction of cataract, does destroy the power of accommodation. The loss of this function may not be complete, but it is nearly so.

The mode of action of the ciliary muscle is still a subject of disagreement. Some of the theories respecting it are set aside by the facts to be related.

The changes wrought in the crystalline lens have also been in dispute. Most physiologists have held that the lens is moved forwards and backwards as the adjustment requires. Others have thought that the lens undergoes a change in form, but not in position—that is, it becomes thicker and its focus shortened when the eye observes near objects; it becomes thinner and its focus lengthened in looking at distant objects. That the lens is really changed in shape, but is not moved forwards or backwards, is proven by the investigations of Prof. Helmholtz. The learning and ingenuity brought to this task are worthy of the inventor of the ophthalmoscope.

He sought to ascertain the exact curves of the cornea and of both surfaces of the crystalline lens in the living eye. This can be done by measuring the size of the image reflected from their surfaces. The calculation is made by aid of the formula, that the size of the object is to its distance from the eye as the size of the image is to half the radius of curvature of the reflecting surface.

Other observers have sought to measure the corneal reflected image; the greatest difficulty is experienced in keeping the eye perfectly still. Very slight movements are largely multiplied in the calculation, and produce errors that vitiate the result. Instead of using the usual means, viz. two parallel spider-web threads placed in a telescope, Helmholtz contrived an instrument which he calls an ophthalmometer. Slight movements of the patient's eye do not interfere with its working. To describe the instrument intelligibly is impossible without plates. It is a telescope mounted on a stand, and to its objective end has fitted a box containing two vertical slips of glass, placed one above the other, touching at the edge, and with their faces opposite the end of the telescope. These slips turn upon a vertical axis, but in contrary directions. When the slips are in a plane at right angles to the axis of the telescope, rays of light pass through the glass without refraction, and objects undergo no change in apparent position. But by turning the slips at an angle to each other, an object appears double, or two objects may, by turning the slips in the contrary direction, be confounded into one. It would lead too far into mathematical optics to present the steps in the process by which the results of the observations are reached. The calculations are based upon mathematical inductions, and the observations made with care and frequency to verify their correctness.

Helmholtz declares that the form of the cornea is not

that of a portion of the surface of a sphere, but of the surface of an ellipsoid.

He examined the eye after death, and found the cornea to become more curved. When, however, the globe was distended by fluid introduced by means of a bent glass tube, the cornea became flatter the greater the pressure. In the living eye also, he found that when the globe was made hard by increase of its contents, the cornea was flattened. This corresponds with Graefe's assertion of the flattening of the cornea in glaucoma. The explanation is simple, namely, that under such pressure the eyeball being equally pressed on all parts, tends to assume the shape of a perfect sphere; the cornea, which bulges, must then become flattened.

In the act of accommodation, the shape of the cornea is not altered; its curvature remains the same whether the eye be directed to either near or distant objects.

When looking at near objects the pupil contracts, the pupillary edge of the iris advances, and the ciliary border of the iris retreats. When the pupil contracts under the stimulus of light, this advance of the pupillary edge of the iris is not nearly so great as during the act of adjustment. The simultaneous recession of the ciliary border of the iris is necessary to give room for the displaced aqueous humor. This fluid does not pass behind the iris into the posterior chamber, because the pupillary border lies closely in contact with the crystalline lens. This relation of these surfaces is true under all conditions. The free space called posterior chamber exists only between the border of the lens and the outer edge of the iris.

To measure the curvature of the anterior surface of the crystalline lens, by means of the image which it reflects, is not so easy as in the cornea, because the reflection is much fainter. Helmholtz contrived to do it by comparing the images from the cornea and from the anterior surface of the lens with each other—using two faint lights to be reflected from the cornea and two intense lights to be reflected from the lens. By the ophthalmometer he was then able to get the measurements. He found that in looking at near objects the image reflected from the lens was only five-ninths the size of the image observed when the eye was adjusted to distant vision. This difference could not possibly be produced by a simple advance of the lens as a whole towards the cornea, but can only be produced by an increased convexity of the surface. In becoming more convex the apex of the curve must approach nearer the cornea, as is also evidenced by the advance of the pupillary edge of the iris.

Helmholtz found, moreover, that the posterior surface of the lens also becomes more convex during near vision, but in a much less degree than the anterior surface.

The various changes in the eye thus demonstrated to occur during its adjustment for near vision, are as follows: First, the pupil contracts, by this means the dispersion of rays from spherical aberration is diminished; second, the pupillary portion of the iris advances, its peripheral portion retreats; third, the crystalline lens becomes more convex both anteriorly and posteriorly. It is thus made a lens of shorter focus.

When it is remembered how much softer the superficial parts of the lens are than is its nucleus, this change of shape will not appear surprising. The exact mechanism by which it is effected cannot be so positively stated. When, however, the force or forces cease to act, the lens recovers its usual shape, the iris its usual plane, the pupil dilates again, and the eye is in a state of repose, adapted to the vision of objects more or less remote.

Another fact pointed out by Helmholtz is that the line of vision, namely, the direction of the ray which falls perpendicularly upon the macula lutea of the retina, is not identical with the antero-posterior axis of the eyeball. He states that at the cornea the extremity of the visual line lies to the inner and upper side of the axis of the globe, while the macula lutea lies at its outer and lower side. The centre of the pupil is placed to the nasal side of the centre of the cornea.

The Existence of Circular Fibres in the ciliary muscle: the mechanism of accommodation.—By Heinrich Müller, *Archiv für Ophthalmologie*, B. III., Abth. 1. S. 1.—The descriptions of Bowman and Brücke of the ciliary muscle, agree in stating that its fibres take origin from the point of junction of the cornea and sclerotica, to run backwards in lines nearly parallel with the meridians of the globe, to be inserted into the outer surface of the choroid. Prof. Müller describes besides these another set of fibres, whose course is parallel to the margin of the cornea. They are situated at the anterior portion of the muscle, beneath the longitudinal fibres. The two sets of fibres are to some extent intermingled, and the circular bundles which lie most posteriorly, in some instances change their course so as to become longitudinal. These last bundles lie underneath those whose course from their origin is longitudinal. Those fibres which are exclusively circular, lie next to the elastic fibres which pass from the posterior elastic lamina of the cornea, to form the "pillars of the iris," and they also pass over and outside of the tips of the ciliary process of the choroid.

Before this description of Prof. Müller, the late Dr. Henry Clay Wallace of this city had declared that the ciliary muscle consists of both circular and longitudinal fibres.

The inferences which may be drawn from this fact, taken in connexion with the discoveries of Prof. Helmholtz, to explain the accommodation of the eye, are thus condensed by Müller.

The circular fibres of the ciliary muscle exert pressure upon the edge of the lens, through the ciliary processes; the lens is thus made thicker. The longitudinal fibres making tense the choroid tend to draw forward the vitreous body; they make pressure behind the lens, which prevents the lens from becoming so convex behind as in front.

The contraction of the circular ciliary fibres draws backwards the peripheral portion of the iris; the radiating fibres of the iris are thus made tense, and press upon the border of the lens, assisting in increasing its convexity. Inasmuch as the anterior and posterior capsules of the crystalline lens pass backwards to adhere intimately with the zonula of Zinn, a portion of the hyaloid tunic of the vitreous body, the effect of the traction of the longitudinal fibres tending to press forwards the vitreous humor, will be to relax the tension of the zonula of Zinn upon the capsules of the lens, and thus favor its increased convexity.

It may be added, that under the compressing forces direct and indirect, there must be some constraint upon the circulation of the blood, and consequently turgescence of the ciliary processes and folds, which will aid the action of the muscular fibres.

The Effect of Santonine upon Vision, and the reason for it.—By Professor Franceschi of Bologna. The peculiar effect of santonine, the alkaloid of the European Wormseed, *Artemisia contra*, in giving to all objects a yellow hue, in the eyes of the patient, is attributed to its purely physical properties, and not to any elective stimulation of the optic nerves and retina. Pure santonine is white: when exposed to the light it becomes yellow. In parts of the body to which light does not penetrate it remains white, but in the tissues of the eye it is exposed to the light, and gives rise to the apparent coloration of objects. Prof. Franceschi bases his views upon these experiments. He put two grains of santonine in water, and exposed them for twenty-four hours to the light. They became yellow, and then he swallowed the mixture. He found no modification of vision or coloration of the urine. He afterwards took two grains of santonine unchanged in color, and the result was the yellow vision; and the urine which at first emission was clear, promptly became yellow and even of a greenish tinge.

If these conclusions may be admitted, the reported virtues of santonine in restoring the impaired functions of the retina and optic nerve must be greatly questioned. The query may be put, if the colored vision is due, as averred by Prof. Franceschi, simply to coloration of the santonine, which has

found its way into the tissue of the retina—Ought not the yellow color to be discernible in the skin, where it must be presumed the santonine will also be found?

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, May 1, 1861.

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

DISCUSSION ON MORBUS COXARIUS.—EXSECTION.

(Continued from page 346.)

DR. JOHN WATSON wished to call the attention of the Academy to the subject of exsection. When he looked over his own experience and that of other gentlemen, he was surprised to find how few patients died of morbus coxarius. In the last twenty-five years he had not seen more than three fatal cases. He was disposed to think from that fact, and also from the small number of fatal cases reported from year to year in the City Inspector's Report, that the disease was not of such a formidable character as some might lead us to suppose, and consequently the operation for exsection was performed much too often. He was satisfied that a large proportion of the operations were performed not so much for the good of the patient as for the gratification of surgical vanity. Within the last year, he supposed that at least twenty operations of exsection were performed by the different surgeons in this city, and that the very large majority, if not all of these cases, would have recovered by proper care and constitutional treatment. He had seen some of the specimens of exsected bone which were exhibited, and was astonished and ashamed to see such a small amount of disease.

DR. SAYRE was very sorry that Dr. Watson had not given him information in relation to the number of cases operated upon before. In his report he tried every means to ascertain all he could about the operations performed in this city within the past year, and could succeed in obtaining but seven; one by Dr. Church, one by Dr. J. R. Wood, one by Dr. Carnochan, one by Dr. A. B. Mott, one by himself, and two by Dr. Bauer. Dr. Wood's case was not mentioned in the report, for the reason that the operation was not performed until two days after the corrected proofs of the article had been sent to Philadelphia for publication. Dr. Sayre thought that if Dr. Wood's operation had been performed earlier, the patient would have been saved a great deal of suffering. He had seen several persons die from morbus coxarius in excruciating agony, and considered it a sufficiently formidable disease to warrant an attempt to relieve it by an operation, even if it were during the last moments of the patient's life, and it did nothing more than make dying easy. The operation also should be performed as early as practicable, in order to spare the patient unnecessary suffering. In regard to the operation being a formidable one, he remarked that it was almost a bloodless one; he had not seen more than a couple of tablespoonfuls of blood lost in any one operation. He cited in this connexion the case of a child in Eleventh Avenue, who had been in perfect torture with morbus coxarius for a year and a half; several sinuses were made to communicate by incisions; and the head of the bone was pinched off by the thumb and finger. He did not consider that such was a formidable operation. It was six weeks from the time of the operation, and the case was getting on finely; in fact, he doubted not but that at the end of six months the child would be entirely recovered, and would have a movable joint. Instead of such operations being considered unwarranted, he thought that by their performance the principles of conservatism were carried out to the very letter. It was to prevent the necessity for a more serious operation, that he advocated this plan of procedure. He had never seen any portion of

healthy bone removed by the operation. In all the cases the head of the bone was almost, if not entirely destroyed, the acetabulum being in most of the cases affected with the disease.

DR. POST remarked that Dr. Geo. A. Peters, in addition to the before-mentioned gentlemen, had also performed exsection within the past year.

DR. KRAEKOWIZER remarked, that he had no personal experience in exsection of the head of the femur for morbus coxarius, although he had been present when such operations had been performed. The manner in which Dr. Watson had denounced the operation in relation to the particular disease under consideration, he took to be a sweeping condemnation of the exsection of all the other joints. He did not think that the results of Dr. Watson proved anything more than that he had employed the proper treatment in the particular cases. If that gentleman would be present at the next meeting of the Pathological Society, there would be no doubt but that he would be convinced by Dr. Jacobi, that the specimen of the exsected portion of the femur, which would then be exhibited, would be found to be sufficiently diseased to warrant the performance of the operation; that Dr. Watson would see that the head of the femur was entirely gone, and the greater part of the neck was carious, and partly necrosed, as was also the case with the greater portion of the acetabulum. Dr. K. thought that if such a sweeping condemnation should be merited against exsections in general, all the operative procedures which have in view the removal of dead bone from any part of the body should be entirely ignored. When the bone of a joint was diseased, he maintained that the only chance that was offered for a cure was a removal of the dead portion, especially when the joint was buried as deeply as that of the hip.

DR. WATSON did not wish to condemn the operation when the circumstances of the case rendered its performance necessary; but he wished to state as his conviction that the operation was awfully abused in this city. Very few gentlemen, continued he, practising surgery in this city, know how to measure the forces of nature in the management of diseases, particularly those about the joints. Carious bone is not dead bone; if such cases be properly managed, by supporting the general strength, the disease of the bone will restore itself. If the circulation of the bone be cut off quickly, necrosis is the result; if gradually, caries follows. I will give an instance to illustrate an important point in this connexion. A number of years ago, a little boy with carious disease of the ankle, was admitted into the New York Hospital, and remained in the institution several months, with copious discharge from various sinuses communicating with the joint. Finally, it was thought best to remove the foot, to save the life of the patient. After I had taken it off, I regretted the operation. What was the change going on in this case? This little fellow had had chronic inflammation of the ankle-joint, the cartilages and synovial tissue had been absolutely destroyed, the bone had become carious, little portions of dead bone were thrown off, but the bones of the foot and the tibia still retained their vitality, and the process of repair was going on, granulations were shooting out, and the two surfaces of the joint were fast becoming welded together. If I had left the child a little while longer without an operation, he would, without doubt, have recovered. The same principle holds good in reference to the pelvis. It is not necessary to cut the head of the femur out and tear the pelvis to pieces, merely because a little carious bone exists!

DR. MIXON thought that a proper dividing line should be drawn between those cases requiring operations and those which could be benefited by a resort to other means. During the earlier period of carious disease, he doubted not but that the operation could be dispensed with; but, on the other hand, when the disease had progressed so as to involve a considerable extent of bony tissue, exsection was equally imperative. The proper discrimination in any given case showed the skilful surgeon. He had a very

vivid and painful recollection of three specimens of heads of femurs which he saw presented at the Pathological Society, in which there was such a small amount of disease that they appeared almost healthy, as they were rolling about upon the plate. He recollected the remark which the exhibition of one of the specimens elicited from Dr. Clark, who thought that there was an astonishingly small amount of disease for such a formidable operation.

Dr. BRONSON was disposed to think that all cases of true morbus coxarius had a vital cause, which was developed by some local injury; in proof of which view he instanced the frequent occurrence of relapses. The sudden transition of position from the second to the third stage, he was disposed to consider due to the rupture of the ligamentum teres, a subluxation being the consequence, and hence deemed the application of elastic extension at that time of the utmost importance. If, however, the apparatus was applied before, it might, by its tension, tend to hasten the advent of the third stage. In accordance with the doctrine of the vital origin of the disease, he was disposed to place a great deal of reliance on constitutional treatment. In relation to the elongation, eversion, and abduction of the limb in the second stage, he was of the opinion that it was caused by a relaxation of the muscles. He could not, however, reconcile the statement in relation to the *firm* contraction of the flexor and abductor muscles of the thigh, in causing abduction and eversion of the limb. If these muscles were so *firmly* contracted, the thigh should be strongly flexed upon the pelvis and adducted. He thought the error was in reference to the word *firm*.

Dr. FINNELL stated that it was a well received maxim to remove dead bone, but it was a matter of extreme importance to him to know *when* such an operation should be performed.

Dr. ALEX. H. STEVENS.—I doubt not that the result of this discussion will be that we shall be better informed in relation to the disease than heretofore. I entirely agree with Dr. Watson that caries is not, necessarily, an incurable disease. We see that proved, I think, most conclusively in caries of the spinal column, which we often see getting well by ankylosis. I think that the operations which have been performed, and one of which I have witnessed, go to show that the older surgeons were too timid in their dealings with joints. I am now convinced that opening a joint *per se* is not a dangerous operation. On the other hand, it appears that much of the good which has taken place, and which follows operations, may be attained simply by opening the joint. Now, when my friend and pupil, Dr. Post, requested me to speak upon this subject, not knowing what course the discussion might take, I thought I would bring up to your notice another subject, connected not only with this matter of diseased joints, but, in fact, with all inflammatory diseases, and which I have been very slow in learning. Every inflammatory disease, if treated too long, becomes neuralgic in character, a new train of symptoms arising, which are supposed to be the continuation of the inflammation. There is a turning point in every disease, which, if overstepped by too active treatment, will not get well. I have fallen into the same error, and have treated cases for months which I might have terminated in as many days. I have known gentlemen treat children by keeping them on barley water for two or three years, with a result which you can imagine. A case illustrating the same principle, and which I thought of importance enough to publish, was that of a lady who sprained her ankle. I had come from Dr. Physick's lectures, fresh with his lessons upon the importance of rest, and I kept the joint at rest. This treatment was persisted in for a very considerable length of time, until she could not rest her foot upon the floor. Various remedies were recommended by different surgeons, but I was not relieved from the difficulty. Her husband was lost at sea about that time, and a pressing necessity arose, *volens nolens*, for her to leave the house and attend to pecuniary matters. From that moment she began to improve, and in the course of

three months was as well as ever. My rule in the treatment of joints is this: I treat the part antiphlogistically for a week or two, after which I do not pretend to restrain motion. If then this motion is productive of great pain, irritation, or perhaps the foreshadowing of a relapse, a rest to the joint of twenty-four hours is generally all that is required to interrupt the further course of treatment. In conclusion, he expressed a high regard for the new plan of treatment by elastic extension.

Dr. SATRE, in relation to Dr. Bronson's idea of the elongation and eversion of the limb in the second stage, stated that he had never seen an inflamed joint where the muscles were relaxed; they were, on the contrary, stimulated by reflex action to contract, and thus distort the pelvis. The reason why the limb was not strongly flexed and adducted, he explained by the presence of fluid in the joint, which played antagonistic muscles on the stretch. In hip-joint disease, the first ligament according to his experience which was destroyed was the ligamentum teres. Dr. S. did not understand the apparatus as intended to remove the head of the bone from the acetabulum (he doubted if such a removal took place to any great extent)—but to overcome the muscular rigidity, the result of the reflex action. Dr. Finnell's question was answered by the statement that in the first and second stage there was no need for excision, and not even in the third stage, unless the sinuses, despite of other treatment, continued to remain open, discharge, and run down the constitution of the patient. At best, the operation was a *dernier ressort*.

Dr. STEVENS thought that the gentleman lost sight of the fact, in the explanation of the position of the limb in the second stage, that the relations of the muscles were changed by the accumulation of the fluid in the joint, and the shortening of the neck of the femur, and atrophy of the head.

Dr. DAVIS, by permission, answered a question from Dr. Holcomb in reference to the practicability of the application of the splint in the first stage, by a reference to its beneficial application in the case previously reported, of the young school miss. In the earlier stage he was accustomed to allow a sufficient amount of motion to accommodate the patient.

Dr. HOLCOMB referred to a new edition of Rokitsansky, just published, in which many interesting views, some of them altogether new, were expressed in relation to the pathology of this disease. Rokitsansky maintained that the disease commenced alike in the cartilage, synovial membrane, and ligamentum teres; and regarded the deposit of tubercle in the bony tissue more as a consequence than a cause. The discussion was in his opinion one of the most interesting that had taken place before the Academy, and he hoped that the whole subject would be properly worked up in some permanent form and largely circulated. He stated, in conclusion, that the operation for excision was very common in Germany, being advocated by Langenbeck; but in France, in the third stage of the disease, there was a decided preference for the introduction through the joint of the hollow seton of Chassaignac.

Dr. A. K. GARDNER presented a specimen of bread made without fermentation, by simply impregnating a mixture of flour and water *in vacuo* with carbonic acid gas. The process is carried on in a similar manner to that of manufacturing soda and mineral waters. It is very necessary to exclude air; otherwise such an unpleasant taste is given to the bread as to render it unfit to be eaten. The bread can be supplied at the shortest notice, without the use of the hands, a barrel of flour being mixed in the space of five or ten minutes by the machine, and the supply is only limited by the size of the ovens. It is non-fermentable, which circumstance, as well as its rapidity of preparation, renders it a valuable article for a travelling army. Dr. G. stated that all who wished to see the process were free to call at the corner of Fourteenth Street and Third Avenue.

On motion of Dr. Griscom, the subject was referred to the Section of Public Health and Legal Medicine.

The Academy adjourned.

EULOGY UPON THE LATE DR. FRANCIS.

On the last Wednesday evening in May, the Academy of Medicine held a special meeting in the rooms of the Historical Society for the purpose of listening to the eulogium upon the late Dr. JOHN W. FRANCIS, by PROFESSOR MOTT. The room was well filled with the Fellows of the Academy and their friends, among whom we noticed many ladies, who, with literary and scientific gentlemen of other professions, formed a highly refined and appreciative audience.

The style and spirit of the discourse were dignified and fraternal. The speaker commenced by quoting a sentiment from Homer to the effect that the surviving friends of the departed may find a kind of pleasure in enjoying together their mutual grief, and noticed the duty of the living to pay honors to the distinguished dead. In fact, it is an ambition to enjoy the good opinion of our fellow men after death as well as during life, that more than the desire of mere pecuniary reward incites men to perform noble deeds; and this is especially true of the medical profession. It was the desire of the deceased to leave behind him writings which should continue to speak when he himself should be speechless, and the name of FRANCIS will go down to the future with those of HOSACK, BARD, PHYSICK, and WARREN, and our other distinguished American physicians.

The main points in the life of Dr. FRANCIS were noted; that he was a student of the late Dr. HOSACK, that he attended the first course of lectures given by Dr. MOTT in Columbia College, that he was a literary graduate of that college, that he was the first graduate of the College of Physicians and Surgeons in 1813, that he was subsequently connected in business with Dr. HOSACK, and that they published together for some years the *Medical and Philosophical Register*. His election to the professorship of *Materia Medica* in his Alma Mater was recounted, with his subsequent visit to Europe, and the effect which his intercourse with the distinguished foreign savans of that day probably had in the formation of his character and habits. The history of the connexion of both the deceased and the speaker with Rutgers College was narrated, and an elegant incidental tribute paid to their distinguished associates, the illustrious HOSACK and the lamented GOODMAN.

In dwelling on these departed scenes, the spirit of the former times seemed again to animate the great surgeon, so that his utterance—usually clear and distinct—became at times tremulous with emotion. The warm spirit of affection that breathed through the entire discourse, was in the highest degree complimentary to the deceased, and decorated the venerable speaker with additional grace. Taken all together, the eulogium was worthy of the subject, worthy the speaker, and an honor to the distinguished association before whom it was pronounced. In accordance with a resolution of that body it will be published.

CASTRATION FOR EPILEPSY.—Dr. James J. Rooker, of Castleton, Indiana, reports a case in the *Cleve. Med. Gaz.*, of castration for the cure of Epilepsy evidently dependent upon the habit of excessive masturbation. The patient was thirty-five years of age, and the disease remarkably severe. The operation has proved entirely successful.—*Chicago Med. Jour.*

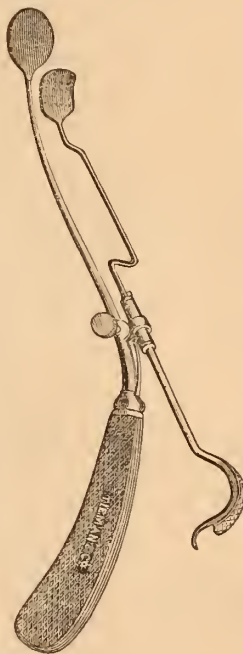
PUS-CELLS IN THE ATMOSPHERE.—The following statement, which of course will require careful examination, is published in the *Cosmos*.—In the Orphan Asylum near Prague an epidemic of purulent ophthalmia lately broke out, and 92 children out of 200 were attacked. Great care was taken to avoid the contact of the matter, but the medical attendants and nurses nevertheless took the disease. M. Eiselt thereupon proceeded to examine the air with Pouchet's *aéroscope* improved by Purkynje, and in the atmosphere of a ward where lay a great many of the children a large number of pus-cells were found. In fact, the cells were noticed upon the instrument immediately the air was made to pass through the apparatus. A committee has been appointed by the Medical Society of Vienna to investigate the facts published by M. Eiselt.

Correspondence.

THE PHARYNGOSCOPE.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I beg leave to present to you for publication the sketch of an instrument that I found most convenient for the examination of the pharynx and the posterior part of the cavity of the nares. This instrument has been constructed after the original one of Dr. Semeleder, of Vienna, which, to correct inconvenience in its applications, had to undergo a few modifications. The little apparatus is composed of two branches, of which the lower one, made of



flexible metal, carries the reflector, the other of hard metal the spatula for the uvula; either of the branches might be employed alone, or they might be used joined together in such a way as to allow the upper one to slide over the lower one, for the purpose of drawing forward the velum and uvula to the greatest needed extent. The mouth of the Eustachian tube may be examined thus by two different modes: either indirectly through the reflector, or directly as described already by Semeleder in his article in the *Wiener Wochenschrift*, 1860, by drawing forward the velum as much as possible, and thereby extending the field of vision laterally and upwards. Two points I might urge for practical consideration: to interfere as little as possible with the movements and position of the tongue. During the endeavor of passing the instrument behind the velum and spreading its branches, you lower the handle of the instrument as

much as possible, because if kept horizontally, the upper branch will drive the uvula towards the hinder opening of the nares and obstruct the entrance of light to those parts, whereas when kept vertically, it will move the uvula and velum more in a forward direction. As in laryngoscopy, it is difficult in the beginning to find our way through the parts to be examined, but here, unlike the case of vesical examination of the larynx, we are possessed of a very simple means as director for our inspections; that is, the Eustachian catheter. And after practising for a good while the different methods of pharyngoscopy, I consider that one of the greatest advantages resulting from the employment of this method, is that it requires only one hand to secure all its benefits.

By so combining catheterism with rhinoscopy, Voltolini was enabled to state some very important facts, with complete evidence:—

First. That the catheter might be entered into the Eustachian tube from the opposite side of the nares, a necessity which we have to submit to very often in auristic practice.

Secondly. That the hearing of air entering into the internal ear does not necessarily prove that the pharyngeal ear of the Eustachian catheter has passed into the pharyngeal opening of the Eustachian tube, but that it may only be placed near it, a position not well adapted certainly to allow the internal ear to have the full benefit of medicinal vapor, and much less favorable to the introduction of bougies into the tube.

My chief object for the present in sending you these notes for publication is to offer an opportunity to the practitioner to compare this method with that of Voltolini, fully described by him in Virchow's *Archiv* I. 1 (new series).

Respectfully yours,

J. SMROCK, M.D.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

[To the Editor of the AMERICAN MEDICAL TIMES.]

SIR:—I noticed in one of your late issues that you advised a postponement of the annual meeting of the American Medical Association, and I perceive that the Committee of Arrangements have taken the responsibility of acting in accordance with your advice. With the greatest respect I must differ from you as to the propriety of this action. The attendance, it is true, would not have been large, but, at the present time, certain professional subjects, relating to military surgery and the hygiene of armies, are of peculiar interest and importance. These subjects would have created discussion, and committees might have been appointed whose reports would prove most seasonable and valuable. I must say also, that it seems to me the committee has assumed a power which does not belong to it, of postponing the meeting. The meeting should have been held, and if, for any reasons, it was not deemed advisable to continue in session, it might have adjourned.

Since, however, the meeting is not to take place, would it not be proper for the committee of arrangements to receive and refer to appropriate committees papers which have been prepared by appointment, in expectation that the meeting would take place? It does not seem to be just to those who have taken pains to write elaborate reports, to postpone their communication to the profession.

There is another matter still more important. The association has invited essays to compete for the prizes; and if essays have been offered worthy of a prize, it is plainly the duty of the committee on prize essays to act as if the meeting had been held. It can be considered in no other light than a breach of good faith to invite the labors of competitors, and hold the papers for a year, then to come into competition with the competitors of two years.

Yours etc., ALPHEA.

Medical News.

PERSONAL.

DR. DAVID P. SMITH, of Springfield, Mass., whose interesting letters from abroad have appeared so frequently in the *Times*, has returned.

ARMY INTELLIGENCE.

CONNECTICUT—*Fourth Regiment Volunteers*.—Surgeon, Samuel W. Skinner; Edward Bentley, Assistant.

MAINE—*Third Regiment Volunteers*.—Assistant Surgeon, J. Palmer.

NEW YORK—*Thirty-seventh Regiment*.—Surgeon, J. McNulty; Assistant Surgeon, W. O'Meagher.

MRS. P. E. YATES has been appointed by Miss Dix Matron of the Military Hospital at Cairo.

OHIO—The Board of Medical Examiners for Ohio, have recommended the following gentlemen for appointment in the Army. *Surgeons*.—Drs. C. E. Boyle, Columbus; J. A. Coons, Dayton; O. Ferris, Upper Sandusky; J. F. Gabriel, Piqua; J. A. Kyle, Xenia; H. M. McAbee, Canton; C. S. Muscroft, Cincinnati; J. D. Robinson, Wooster; Benjamin Tappan, Steubenville; S. D. Turney, Circleville; S. Loving, Columbus; C. A. Schwartzwilder, Ironton; Douglas Day, Zanesville; G. L. Meyer, Cleveland; B. B. Brasher, Canal Dover; W. W. Ames, Orrville. *Surgeons' Mates*.—W. C. Daniels, Toledo; T. J. Cleveland, Cleveland; W. H. Drury, Columbus; C. F. Denig, Grove City; C. J. Bellows, Jefferson; J. M. Morrow, Mansfield; E. D. Hill, Oxford; R. Wirth, Gilboa; F. W. Ames, Cincinnati; W. Z. Gett, Columbus; S. Sexton, Cincinnati; John B. Rice, Fremont; W. K. Shrift, Putnam Co.; C. H. Swain, Toledo; H. H. Seyes, Springfield; F. Salter, Fayette, Co.; D. S. Young, Cincinnati; F. D. Morris, Hamilton.

Drs. McDermont, of Dayton, McMeens, of Sandusky, and McMillen, of Columbus, were appointed by the Governor before the assembling of the Medical Board. Drs. J. D. Webb, of Cincinnati, Willson, of Sidney, and Greenleaf, of Cincinnati, were also appointed Surgeons' Mates at the same time by the Governor.

QUEENS COUNTY MEDICAL SOCIETY.—This Society held its 24th annual meeting at the Court House, on Tuesday, the 28th of May. Dr. Townsend, the President, in the chair.

The session was occupied, as usual, in the reading of papers, and in verbal reports of interesting cases.

The annual address of the President was on "the Duties and Responsibilities of the Physician."

A paper was also read by Dr. Webb of Hempstead, on Diphtheria.

The election for officers for the current year resulted in the choice of the present incumbents, viz.:

President, Dr. Townsend, Glen Cove; Vice-Pres., Dr. Treadwell, North Hempstead; Sec. and Treas., John D. Shelton, Jamaica; Censors, Drs. Whitney, Andrews, and Baisley.

A standing rule was then adopted by the society that hereafter at every annual meeting the president shall appoint a committee of three, viz. one on each of the departments of Medicine, Surgery, and Midwifery, to report to the Society an abstract of all prominent improvements and discoveries, in each of these departments, which may have been presented to the Profession during the preceding year. The President appointed the following committee:

Medicine, Dr. Strew; Surgery, Dr. Treadwell; Midwifery, Dr. Webb.

The following resolution was then adopted, "In order to give expression to our feelings of loyalty and devotion as a profession to the Union and its Federal Government, the members of the Queens County Medical Society hereby declare their readiness to bestow their services gratuitously—when needed—on the families of any persons, in their respective localities, who may have enlisted for the war."

ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.—The annual meeting of this society was held, June 6th, at Boston; the President, John Homans, in the chair. The papers presented were:—"On Zymotic Diseases," by Dr. E. Cutter of Middlesex, E. D.; "On Relief of Pain by Subcutaneous Injections," by Dr. A. Rupperer. Resolutions offered by Dr. Jarvis of Dorchester, setting forth the importance of the formation of a Sanitary Commission, were adopted.—Dr. J. G. Metcalfe, Geo. C. Shattuck, and Geo. Choate were appointed a committee on Scientific Communications. The annual address was delivered by Dr. Henry C. Perkins of Newburyport, and treated of the duties of the military surgeon. The officers of the last year were re-elected. Dr. H. J. Biglow was chosen anniversary chairman, and Dr. H. I. Bowditch to deliver the next annual address.

THE WEST INDIA QUARTERLY MAGAZINE.—A new periodical with the above title is to be published in Kingston, on and after the 31st of August, under the editorial management of Hugh Crookery, L.R.C.S.I.

FOREIGN ITEMS.—M. Chassaignac has lately performed the operation of lithotomy on a boy three years of age, with his favorite instrument, the ecraseur. The child had quite recovered at the end of six weeks. A calculus about an inch in diameter was extracted.—Dr. Tagliabò has just died at Rome.—Professor Liebig has been appointed Foreign Associate of the Academy of Sciences, Paris.—The Court of Colmar (France) has lately decided that a person who makes a diagnosis or treats a patient in a mesmeric trance, is not an impostor, maintaining that the inefficacy of such a diagnosis has not been scientifically proven.

NEW HOSPITAL AT ST. PETERSBURG.—The municipal authorities of St. Petersburg have determined to found a new Hospital for poor artisans. It is to be called the Alexander Hospital.

Original Lectures.

COURSE OF LECTURES

ON

DENTITION AND ITS DERANGEMENTS.

DELIVERED AT THE

NEW YORK MEDICAL COLLEGE AND CHARITY HOSPITAL
IN THE PRELIMINARY COURSE.

SESSION 1860-61.

By A. JACOBI, M.D.,

PROF. OF INFANTILE PATHOLOGY AND THERAPEUTICS.

Continued from Vol. I., p. 435.

LECTURE IV.

Formation, nutrition, and protrusion of permanent teeth—Absorption and expulsion of the temporary—Their causes—Period of second dentition—Wisdom tooth—Third dentition—Curious cases from literature—Is there a third dentition?—Explanation of the cases on record.

GENTLEMEN:—In order to complete the anatomical and physiological part of our subject, let me proceed to some remarks on the permanent teeth. You remember, from my previous lecture, what I said, following the description of the process as given by Harrison, on the first formation and development of the temporary ones. Soon after the commencement of the saccular stage of the deciduous teeth, the rudiments of the second or permanent set are developed. About the fourteenth week of foetal life the deep portion of the primitive dental groove is closed in, and contains the sac and papillæ of the ten milk teeth; the upper or superficial portion of the groove remains open, and is then named *secondary dental groove*. In this commence the rudiments of the permanent teeth. At first a small depression is observable behind the superior openings of the milk sacs; this increases, and forms the *cavity of reserve*. These cavities are lined by an inflection of the mucous membrane, and at the bottom of each a small papilla is formed; they gradually recede from the surface, and are thereby converted into follicles, and finally into closed sacs, which lie to the inner side of, and in close contact with, the former set, and inclosed in the same submucous tissue. The necks of these sacs, by which they originally communicated with the general mucous membrane, continue as obliterated cords leading to the surface of the gum, internal to the deciduous teeth. These cords have been named the *gubernacula*, or *itineræ dentium*, roads of the teeth, without having, however, any such office as the name would appear to imply. The primitive dental groove, behind the posterior deciduous molar, does not close so soon as the anterior portion, and in it are developed about the fifth month of foetal life the follicle and papilla of the anterior permanent molar. After its follicle has closed, the dental groove closes over it, leaving a space between the gum and the sac of this tooth; in this is a cavity of reserve of mucous membrane for the second permanent molar, and one also for the third molar or wisdom tooth. As the deciduous sacs, as well as the anterior permanent ones, increase in size more rapidly than the bones can elongate, this cavity for the permanent molars is pressed backwards into the maxillary tuberosity above, and into the root of the coronoid process below; but in a few months after birth, as the jaws increase in size and length, the first permanent molar returns to its proper level in the dental range; the cavity of reserve behind them dilates into the space the first molar occupied, and in it is developed the papilla for the second permanent molar. In the course of time, as the jaws further elongate, this tooth advances and descends, and the remainder of the cavity of reserve dilates behind for the third permanent molar or wisdom tooth.

The permanent sacs at first receive their vessels from those of the gum, but afterwards from the temporary sacs; and as they retire into their own cells, these new vessels

enter into new dental canals, which become permanent. In the course of a few years, and after all the temporary teeth have appeared, the further elongation of the jaws admits of space for the first true molar to protrude; this usually occurs between the sixth and eighth years, and sometimes even sooner. At this age there are fifty-two teeth in the two jawbones, viz. twenty deciduous teeth, twenty permanent beneath these, and the twelve posterior molars; and when all the anterior permanent teeth have become enlarged they press upon the anterior wall of their alveoli, which soon undergo absorption; and then each tooth comes a little forwards into the lower part of the alveolus of the milk tooth; the fangs of the latter are absorbed and gradually wholly removed, and then the crown falls out of the sac and the permanent tooth supplies its place. The cause of the disappearance of the roots of the temporary teeth is sought for in the loss of nutrition from the pressure of the *subjacent* permanent tooth, and perhaps in contemporaneous increase in the general injection and nutrition, bringing on liquefaction and absorption. Some pressure is necessary, at all events, for whenever there is no pressure from below, the temporary tooth is not removed. But you must not imagine that the permanent tooth exercises any immediate pressure on the blood-vessels, thereby depriving the temporary tooth of its nutrition; if this was the case, the permanent tooth would exercise just the same influence at a much earlier period, even while the temporary itself was not fully developed. The crowns of the permanent molar teeth, further, are perfectly unable to exercise any pressure on the blood-vessels of the temporary, as they are situated between their roots. The nutrition of the temporary teeth is impaired by two facts, first by the increasing development of the permanent themselves, and further by the development of the maxillary bones, which contract and partially obstruct the canals through which the branches of the maxillary artery penetrate to the tooth. The pressure of the permanent tooth on the temporary one is not at all direct; nor is it necessary that it should be so. Nature usually, in building up and destroying, works very slowly and invisibly. A fine instance of what a slight pressure for a protracted period may effect, and how bones are absorbed from the pressure of a slight physical influence, is given in the fact, that aneurisms of large arteries at some parts of the body, where they are in the neighborhood of bones, destroy the bone by slow gradual absorption. Thus aneurisms of the aorta are reported to have produced absorption of part of some spinal vertebræ, and I have myself seen two or three costal cartilages absorbed from the constant hammering against the chest by a large aneurism of the ascending aorta. You see, therefore, that the pressure of the permanent tooth inclosed in its cell, on the wall separating it from the temporary tooth, it being slowly and continually forced upwards, may be deemed sufficient to bring the root of the temporary tooth to absorption. The effect of the permanent teeth is not in one direction only, for you know that the permanent teeth are not situated in the same horizontal line; the steady slow pressure is exercised upwards and laterally, thus the roots of the molar teeth are absorbed on their inner sides; and the middle permanent incisors press not only on the corresponding temporary, but the lateral ones also. The root of the temporary tooth, while being derived of its normal nutrition by pressure exercised on the periosteum, is liquefied by the increased action in the surrounding parts, brought under the influence of the numerous absorbent vessels contained in the sac of the onwads growing tooth, and excreted like so many other effete matters. The vessels rendering this service to the organism, have been made the subject of particular study by Boardet, who called them "appareil dissolvant," and Delabarre, that learned humbug and nostrum-seller, who comprehends them under the name of "appareil absorbant." This resorption can take place as long as the root is in some connexion with the surrounding parts. If it ceases to be so, the vital powers of absorption are replaced by another; in this case the root has the general

effect of a foreign body brought by some means or other into contact with and imbedded in the organism, to produce inflammation and to be removed by suppuration. Thus no resorption takes place even when the crown of the permanent tooth comes into immediate contact with the root of the temporary; in which cases the temporary teeth, particularly the molar, are found to be turned over and produce, by the effect of their sharp roots, deep ulcerations in the cheek, which will not heal before the temporary tooth is removed.

The permanent teeth appear no more nor less at regular periods than the temporary ones. About the seventh year, or earlier as I mentioned before, the first permanent molar appears, nearly about the time when the first temporary incisors are replaced by the permanent. After all the incisors are changed, the anterior and posterior temporary molars are successively shed and replaced by the permanent bicuspidæ; the canines are changed about the tenth or eleventh year. About the twelfth or thirteenth the second permanent molars appear; the last molars, or wisdom teeth, usually some time between the twentieth and thirtieth.

Ossification requires but a short time in the deciduous teeth, and longer in the permanent. A permanent incisor requires seven years, a canine twelve, a molar from eight to ten years. Ossification commences at the very same time in incisors and the first molars, as is proved by the dissection of the jawbones of infants who died in the first months after birth. It progresses more rapidly in the female than in the male sex; girls, therefore, have their permanent teeth sooner than boys.

In the lower jaw of a child three years of age, the permanent teeth are still in an oblique direction. Only the middle incisors, which are the highest, are in a nearly vertical position; the lateral incisors are situated more inwards, and more obliquely; the lowest are the canine teeth. Higher, and between the roots, we find the molar teeth in their first stages of development, or rather the first one; for as to the second, we find nothing but the cells in which it will be contained in future. The time of its first formation is about the fifth year. As it requires about eight years for its complete ossification, it makes its appearance about the thirteenth year of life. The commencement of ossification in the third molar tooth, and particularly its appearance, is more uncertain, as it depends on local circumstances. It does not usually appear before the twentieth year, but in some cases, according to C. Harris, does not show itself until the thirtieth or even fortieth year, and Canton extracted one for a gentleman seventy-four years of age, who informed him that it was not out until he had attained his seventieth year.

The maxillary bones of a child of from four to five years contain so many and so large cells for both the temporary and permanent teeth, that but very thin osseous walls form a bridge between the external and internal wall of the jawbones. Nevertheless, every tooth, both temporary and permanent, receives a ramification from the common maxillary blood-vessels and nerve. There is sometimes, according to Delabarre's observation, an anomaly in the lower jaw, of this sort, that the submaxillary artery and nerve, right at their entrance into the lower maxilla, divide into two branches, one of which feeds the temporary, the other the permanent teeth. The periosteum of the alveolar cell, being a mere continuation of the external periosteum, takes its blood-vessels from the maxillary artery, branches of which penetrate the porous osseous substance.

A very interesting subject relating to our investigations is that of the so-called third dentition. Is there at all a third dentition? Are those teeth which we are used to call permanent, not permanent, but subject to be temporary only in proportion to those which are to be as it were more permanent? Certainly there are a number of cases reported, in which the teeth are said to have fallen out twice, and to be replaced twice. There is one case even of the following description:—In a girl the first replacement, the second dentition, took place at six years, the third dentition

at twelve; this latter was complete in a single year. This case, our author says, "is highly interesting for two reasons, first, because it occurred in a young individual, while cases of third dentition have been hitherto related of old people only; second, because all the teeth were replaced here by others, while the third dentition has always been incomplete, and limited to the appearance of two or three teeth only." The case, gentlemen, looks so very interesting and beautiful, that I am afraid the reporter is greatly mistaken, or has been grossly imposed upon. Other cases of third dentition are reported, but scarcely any of such a remarkable kind as this one. At all events we require a good deal of belief in the veracity or the judgment of a writer, if we are to take as scientific facts such reports as are in open conflict with the known laws of anatomy and physiology. W. Jackson has the cases of a man of sixty-four, and of a woman of eighty years, in whom a third set of incisors was observed; in one of them the old teeth had just fallen out to make room for the new ones. Sorgoni reports the case of a boy exhibiting a third dentition before he was twelve years of age, and Andral has collected from literature twelve cases of the same anomaly. Lison reports the case of a boy, Eugene Cavillan, thirteen years old, of young and healthy parents, of good constitution and well, and without any anomaly in his general development. The second dentition took place when he was nine years old. Soon after, all his twenty-eight teeth were replaced by others; the same occurrence took place between his tenth and eleventh year, and again between the eleventh and twelfth. When the case was reported by the author, the boy was said to be in his thirteenth year; at this age a new set of teeth was being developed; the first inferior molar tooth of the right side fell out, to give way to another that was already visible. The teeth that had fallen out had no roots, which appear to be eroded. The removal and replacement took place always in the usual order, the teeth being small, white, and of normal shape and position. The gums were red and somewhat tumefied, and the general health of the boy satisfactory.

I consider it a characteristic occurrence that curiosities like those alluded to are more numerous in old, very old books, than in modern ones. Storch, alias Pelargus, who wrote in 1750, reports the case of a lady of seventy years, who, after having lost all her teeth for a number of years, had a new incisor at that advanced age. He further has the case of his own daughter, who cut five molar teeth in her twentieth year; lost them all, and had new ones in their place when she was thirty-eight years old. Before this time, our author says, the lady was always sick from this abnormal teething—the symptoms enumerated, however, being evidently of uterine and hysterical nature; but after the last teeth cut, she became healthy, and strong, and fat. Old Paulinus relates the case of a Countess of Detmond, who lived up to a third dentition, in 1589, and grew one hundred and forty years old. The younger Pliny has the observation of the last molar tooth appearing at eighty years of life: Schottus at forty years, in a physician of his acquaintance; Cardanus, the celebrated mathematician and inventor of the Cardanian Formula, is reported to have cut a tooth at forty-three; several soldiers at forty-three, forty-four, and forty-five; several others, according to Sennerius, at sixty-three, seventy-five, eighty, eighty-one, eighty-eight, even at one hundred and four years of age. In an old book of 1725, there is the case of a woman of sixty-six years, who got not only new teeth, but new brown hair, instead of her former grey. Johannes G. Slevogt reports, in 1733, the case of a captain who cut new teeth at ninety-four years of age, and died soon afterwards; we do not learn whether the old man died in consequence of teething, or whether, if he had not teethed again, he would not perhaps have lived up to our times, and been still older than ninety-four. But the greatest curiosity I have ever been able to hunt up is the following, reported by Möllenbroe, a century and a half ago. There lived at Leipsie a noble lady who had five children; with every

confinement she cut a molar tooth. As soon as one of her new teeth got loose, the child who was born at the time when it was cut, was affected with some severe disease. If such a tooth fell out, she was always certain that the corresponding child was surely going to die. And so it happened, adds our honest author, all the three children died before the mother. Thus you perceive, gentlemen, that as it is said to be customary nowadays that children die from their own teething, it was customary for children in olden times to perish from the dental troubles of their mothers.

Both Courtois and Aimouino have published cases in which a third dentition took place after the permanent teeth fell out; Courtois is of the opinion that the third dentition is observed in the incisors only. If such was the case, why, we must expect that the teeth of the third period were formed contemporaneously with those which were then eliminated by the growth and onward pressure of the subjacent ones. At all events, the belief in a third dentition was so general formerly, that decayed teeth would be removed in the hope that a replacement would take place. Professor Nessel, whose name I have mentioned before, has observed a girl whose middle upper incisors had been extracted in the hope that they would reappear. But not only no new teeth appeared, but the space in which two teeth had been seated formerly was so much intruded upon by the neighboring ones, that but one artificial tooth found sufficient room afterwards. Now, what nature will not do in youth, she will hardly succeed in doing in old age, where all the reported cases of third dentition are said to have occurred. There is less probability of new germs of teeth forming and developing themselves in advanced life, than that there have been from the beginning supernumerary teeth; instances of which have been reported by Ruysch, besides those enumerated in my second lecture.*

The fact that teeth will protrude, sometimes, at old age, is undoubtedly true. Instead of being, however, the symptoms of a renewed power of reproduction, they are, in Professor Nessel's opinion, frequently the results of regressive life; as they become visible after the diminution of the alveoli, and the decrease of the thickness of the gums. Such teeth were always formed, but were either invisible from being sometimes incuneated like the canine, or from being covered by an osseous mass, like the wisdom-teeth. The second molar tooth, particularly, has been observed to reappear in advanced age, but only after the temporary second molar had kept its place, and fallen out at a very advanced period of life. It is not a very rare occurrence that the temporary second molar tooth remains at its place up to the fortieth year, and thus there can be no mystery nor wonder about the fact that another tooth will make its appearance afterwards.

The temporary second molar tooth, however, is not the only one that will remain for a long period, and thereby retard the second dentition. Linderer reports the case of a girl who had her first permanent molar tooth with her eighth year, but whose second dentition did not begin before the fifteenth year. Another healthy and robust girl of fourteen years, who never had the four upper incisors, had all her other milk teeth, yet without there being any probability of an approaching change. Murat has the case of a robust young man of seventeen, who had all his milk-teeth but five; and Bird and Maingault report similar cases. Other cases are noticed, by Linderer, of single milk teeth remaining up to the thirtieth or fortieth year; and Riecken gives the history of a man of eighty-five, who cut a number of incisors and molars, and is said to have suffered during his cutting a molar in his left lower jaw, from cerebral congestion, which was relieved, after local depletion had no effect whatever, by spontaneous hemorrhage from the inner angle of the eye. Finally, a woman of forty-three years was observed by Düntzer, who had all her milk teeth left. After she had been suffering from intense pain in her head

and upper jaws, from swellings of the gums, and diarrhœa, four teeth protruded behind the upper incisors; they were smaller and sharper, and troubled the functions of both mastication and articulation. After the lapse of a year, the same symptoms were observed in the right lower maxilla, which never had any molars before.

Kneisel reports the case of a lady who reproduced four inferior incisors in her fifty-fourth year, after having worn artificial teeth for some time; and a right upper incisor, in place of one that had just fallen out, two years afterwards. The teeth which had fallen out were undoubtedly the temporary ones that had never been removed, and finally fell out at an advanced age from being either pressed upwards mechanically, or being decayed; nobody can say which, as the report does not contain anything beyond the facts I have related. Professor Hessel has the case of a lady who cut a fine white canine tooth at fifty years of age. This tooth became more visible from year to year, not because of its growth, but because of the decrease of the alveolar margins of the maxillary bone. It had been, in his opinion, always formed and ready to protrude, and would have done so but for the other teeth occupying the space naturally designed for it. The same author reports in his book on dentistry (1856) the case of a gentleman of thirty years, who still had his temporary upper incisors.

Original Communications.

DIFFICULT OBSTETRICAL CASES.

By GEORGE T. ELLIOT, JR., M.D.,

PHYSICIAN TO BELLEVUE HOSPITAL AND THE LYING-IN ASYLUM, CONSULTING PHYSICIAN TO THE NURSERY AND CHILD'S HOSPITAL.

(Continued from Page 388.)

CASE LXXVII.—*Remarkable Example of Fatty Degeneration of Fetus and Placenta at term, with the History of a previous Labor.* Bellevue Hospital, Drs. ERSKINE MASON and RIVES, House Physicians.

Rosa Buckley, aged 34, twice married, and now a widow for the second time, commenced her fourteenth labor on the 26th of Feb., 1861, at 8 A.M., and was delivered on the 27th, at 5 P.M., of a still-born, putrid boy, weighing nine pounds. I found her in the lying-in ward, in labor, at 4 P.M. on the 27th, and was struck with the enormous size of her abdomen, which I regret not having measured. The general expression of the patient was that of albuminuria, though careful examinations by Dr. Mason have failed to detect anything abnormal. The breech was presenting; no foetal heart or uterine souffle. At this time the membranes ruptured during a strong pain, when an immense quantity of offensive bloody waters was discharged, leaving the left half of the uterine tumor still distended, as though possibly by the unruptured amniotic bag of a twin. On both sides of the uterus abdominal palpation recognised the outlines of hard bodies, those of a fetus distinct to the right. The breech presenting evidently belonged to a dead child, as the sphincter ani did not contract around the funi, and the skin peeled off. Having decided to proceed to the delivery, I brought down the legs, with the toes anteriorly. The epidermis peeled off readily, but the discoloration frequently seen was not present, the skin, however, presenting spots like those of simple purpura. Having wrapped a towel carefully around the right leg, which was the one destined to come anteriorly, the bones snapped at once, on the most moderate traction. Continuing these tractions with increased care, I was surprised to find the leg separate entirely at the point of fracture. The skin divided as though cut with a sharp knife, and was clearly dissected from the adipose layer. The bones were denuded and dry-looking, like boiled mutton bones. In spite of my

* American Medical Times, 1860, p. 419.

care, the greatest traction available reproduced a like result with both the other leg and the thigh. I then, with great ease, passed a blunt hook within the flaccid anus, and through the abdominal wall, so as to hook it over the pubes, and made cautious tractions in the proper axis, and with good effect, until it fractured the pubes, and tore partially through the foetal tissues. This manoeuvre, however, had enabled me to get hold of the crests of the ilia, and subsequently to draw down the trunk; but I heard the bones of the neck snap, and was obliged to stop. Managed to get the arms down without injury, and found that the cervical vertebrae had separated widely, though the skin was unbroken. With the blunt hook in the mouth I terminated the delivery, and the body was followed by a gush of offensive bloody waters which I have never seen equalled in amount. The placenta came away readily, and was found to weigh 5 lbs. 2 oz. It was entirely fatty—more completely so than any which has ever come under my observation—and the foetal tissues examined by Dr. Jacobi under the microscope were found to have undergone fatty degeneration.

The foetus and placenta were shown to the Pathological Society.

This patient (who recovered perfectly) informed me that I had recommended her to come into Bellevue for the induction of premature labor, in consequence of a previous labor in the Hospital having been complicated with fatty degeneration of the placenta. That labor occurred in March, 1858, and the name is recorded as Rosa Bennett, no. of pregnancy 12th. The case is distinct in my recollection.

Rosa has been twice married. By the first husband she had seven children, all born living, and three still alive; the other four died between the ages of one and ten. By the second husband seven children, all of whom are dead, and five premature and still born. Two were not premature, and lived an hour or two after birth. The second husband died from phthisis. Cause of death of the first, not known.

CASE LXXVIII.—*History of one of Rosa's previous labors.*
—Bellevue Hospital.

In labor from 12 P.M., March 3, 1858, to 7.17 P.M. still born male child, weighing 3½ lbs. F. A. Burrall, House Surgeon.

Left heel presented just over os uteri, which was high up and directed forwards. Drs. Barker and Elliot called, and about half an hour after rupture of the membranes the left foot appeared just outside of the vulva—heel posteriorly. A movement of rotation then took place, and the posterior plane of the foetus came in front. Considerable delay after the breech was delivered. Child dead, cuticle desquamating. Upper part of body delivered by Dr. Barker after cutting cord. The foetus seemed to have been dead a long time, and was almost pulpy. The uterus remained very large, and simulated the appearance of the uterus in twin pregnancy. This depended on a large placenta filled with effused blood. After its removal by Dr. Barker, it was found to weigh two and three-quarter lbs. Previous to her entrance into the lying-in-ward, she mistook a discharge of blood for the waters. Uterus contracted well.

CASE LXXIX.—*Twins—one living—one putrid. Death of latter from fatty degeneration of its placenta?*

Mary Reed, single, aged 26, first pregnancy. In labor from Feb. 19, 5 P.M., to Feb. 20, 8 A.M., in Bellevue Hospital. Drs. Mason and Rives.

First child a boy, living, L. O. A., weight 6 lbs. Second, dead and putrid, weight 3 lbs., footling. There was one placenta with two cords, and two sets of membranes. The line of demarcation was distinct. One portion small and very fatty, both to the eye and under the microscope; the other, one-third larger and healthy.

Placenta shown to the Pathological Society, at the same time with the fatty placenta described in Case 77.

CASE LXXX.—*Danger of Death by Syncope after labor.*
—Recovery.

Mrs. — fell in labor with her fourth child, on the 24th

of March, 1861. Her previous labors have been difficult from the size of her children (which have all been born alive), and from the fact that in each case before this one the occiput has turned posteriorly. The first child was delivered with forceps, by Dr. Metcalfe and myself; the other two were delivered naturally. She has taken chloroform in every confinement, in the first for nearly twelve hours; and she has also taken it for operations on the teeth, and for sick headache. She is a healthy, strongly built woman, with no disease that I can recognise, although she has always been liable to a peculiar lividity of the lips, and subject to attacks of syncope which have demanded no especial treatment.

On the present occasion I was called about 8 A.M., March 25, but made no examination until after ten o'clock, as I knew from a previous one rendered necessary by false labor pains, that the presentation was natural. At ten A.M. the os was fully dilatable, membranes unruptured, head passing through the brim in the first position. I then left for an hour and a half, after forbidding the use of chloroform during my absence, as I was desirous that all the voluntary efforts should have full play. When I returned I found that the pains had been very severe, and that the anæsthetic had been withheld from her with difficulty. The head was now on the floor of the pelvis, the membranes unruptured, and I allowed the moderate use of Duncan and Flockhart's chloroform during the pains, to an extent sufficient to deaden sensibility without rendering her unconscious or unable to see what was going on in the room. The child was born at a quarter past twelve, when I deepened the influence of the agent to insensibility, and allowed her to remain unconscious for not more than five minutes. The membranes ruptured just before the birth of a living male child, weighing 11½ lbs., when the anæsthetic was discontinued, and the patient immediately awakened without assistance, and the customary congratulations of the lying-in chamber were interchanged. With the child there came about a double handful of clots, and no further hæmorrhage occurred at any time. The uterus contracted firmly around the placenta, and after following it down with my left hand, I sat by my patient's side to insure the maintenance of permanent uterine contraction with my hand, as is always my habit. The placenta was expelled from the vagina without assistance after a few moments, the membranes remained in utero, but soon came entirely away, after they had been twisted, and carefully manipulated, after which I remained quietly by the patient, grasping the uterus steadily, and watching its behavior. The contraction was so permanent, that I was about to apply the binder—the friends had been admiring the child, and the mother joining in the conversation, had desired that the child should be brought to her, and had examined and caressed it, without raising her head from the pillow. In short, everything was going on in the most natural manner, when, without any apparent reason, certainly without hæmorrhage, the mother suddenly fainted, and the pulsations of the radial artery became indistinguishable. Retaining my grasp of the uterus, I sprang on the bed, and raised the legs and pelvis high in the air with one hand, while maintaining my grasp of the uterus with the other, ordering the while that the pillow should be taken from under her head, that the window should be opened, and that cold water should be dashed on her face. She rallied, but so imperfectly, that I sent one bystander for medical aid, while another fed her with brandy, and a third went in search of aromatic spirits of ammonia and beef-tea.

And now began a series of fainting fits of the most alarming character, with prostration like that of approaching death by syncope, soon aggravated by distressing nausea and vomiting. The surface became very cool, the features pinched, the complexion livid. Consciousness returned in the intervals of the fainting fits, when she was calm, but complained of dreadful suffering from dyspnoea. I may say once for all, that for nearly three hours I maintained, or caused to be maintained, continued grasp of the

uterus, though it was all the while well contracted, nor did hæmorrhage take place; but I felt that the loss of a very trifling amount of blood would turn the scale. There was no evidence of uterine laceration; the heart sounds, though very feeble and rapid, with weak impulse, could both be heard, and there were no physical signs of disease of that organ; there seemed no other indications than to keep the blood in the head and trunk and support the strength. Thus in addition to brandy by the mouth, fresh air, sprinklings, elevation of pelvis, legs, and arms, bottles of hot water held to the legs and feet, chloroform as a counter-irritant to the epigastrium; I also controlled one femoral artery. In rather less than three-quarters of an hour, I had the gratification of seeing Professor Gilman enter the room, who fully recognised the very critical condition of my patient, and aided me most efficiently in the struggle for her life. When finally it was evident that nothing could be retained on the stomach, we gave brandy and subsequently brandy and beef tea by enemata, which were kept in by firm pressure against the anus. An hour or two later Dr. Metcalfe came, by which time the fainting fits no longer coincided with diminished volume of the pulse. Her thirst was very great, but her stomach could retain nothing; though after vomiting her dyspnoea would be temporarily relieved. Stomach large and tympanitic. Pulse about one hundred and thirty, regular, but feeble. Nitric acid and subsequently hydrocyanic acid were given, and after several stimulating applications to the epigastrium, a blister was applied.

By evening we felt that the chief danger was over for our patient, who had previously calmly and without a murmur resigned herself to die, and the proposition of Dr. Gilman to add opium to the injections was adopted. I remained with her the entire night. The vomiting ceased about midnight, nor did it return, and she dozed somewhat. In addition to the brandy given by the mouth, I injected into the bowel ten and a half ounces of brandy in beef tea, with a hundred and sixty drops of laudanum, as well as a grain of the watery extract of opium.

June 14.—She has made a slow and tedious convalescence, without, however, suffering from any other symptoms than profound debility and tendency to syncope. She nurses her child, and is now able to take a very fair amount of exercise, and has increased in weight. The treatment has been solely of a supporting and stimulating character. On one occasion shortly after her confinement I thought that I could detect a faint systolic basic murmur, but it did not reappear on the next examination, and I have been loath to fix her attention too much on her heart, which is certainly not hypertrophied. During the consultation neither Dr. Metcalfe, Dr. Gilman, nor myself could ascertain more than I have noted.

The key to these phenomena may possibly be found in cardiac lesion; they may possibly have been induced by the anæsthetic, though I submit that a careful examination of the case does not in my opinion substantiate that theory; while it is too well known that we have yet to seek the explanation of many cases of sudden death after labor; and that in many others (as the Duchesse de Nemours) no one could prognosticate lesions only discoverable by an autopsy.

INFANTILE ERYSIPELAS.

By J. LEWIS SMITH, M.D.

CURATOR TO THE NURSERY AND CHILD'S HOSPITAL.

AMONG those diseases, which, though occurring at any period of life, present peculiar features in infancy, erysipelas is conspicuous. As this affection is comparatively rare in the infant, it is evident we can acquire a full knowledge of it only by the aggregate experience of many practitioners; and as the Medical Journals contain few reported cases of it, I have called on most of the leading physicians in the upper part of the city, and obtained from them the histories of such cases as they could recall to mind.

Many of these physicians are in extensive practice, with very little leisure; and I must acknowledge my obligations for the pains they have taken to furnish all the facts in their possession relating to this subject.

There is one form of disease in the very young infant, known as umbilical erysipelas, which I have rejected from the table, although I have records of three or four cases. About the time of the detachment of the cord, inflammation sometimes springs up around the umbilicus, accompanied by tumefaction and hardness of the surrounding cellular tissue, and redness of the skin; but this disease, so far as I have been able to ascertain, lacks the characteristic feature of erysipelas, viz. the tendency to spread. The remark made by Hoffman, "umbilicalem regionem in infantibus frequentius infestat, ac inde per abdomen spargitur," etc., has been quoted by various writers since, but I have not learned of any case in which it extended over a radius of more than two or three inches. There is usually ulceration of the walls of the navel, and pus is sometimes found after death in the umbilical vein.

This disease very generally has a fatal termination, but not in all cases. A case treated by Dr. Hubbard, of this city, recovered. In this child, the complaint commenced five or six days after birth; the inflammation extended from the navel over a radius of about three inches, and the ulceration covered about the size of a half-dollar. On recovering, a firm cicatrix occupied the site of the umbilicus. There seems to me to be as much reason for believing this a simple inflammatory as an erysipelatos affection. Dr. Condie, although describing the disease under the head of erysipelas, believes "that in the majority of cases at least, it is dependent on phlebitis of the umbilical vein;" and Dr. Friebe, quoted by Dr. Condie, "is inclined to view the disease as a variety of partial induration of the cellular substance, in consequence of the cachectic condition of the infants." It is certainly rare in New York, although Bouchut, Condie, and others believe it common. The views expressed in this paper are based mainly on the following notes of cases, which were, with a few exceptions, treated in this city, and upon imperfect sketches of other cases.

CASE 1.—M., aged five months; commenced at right knee, extended over the entire trunk and all the extremities, ending with the neck and ears; symptoms: moaning, restlessness, finally rolling of the head; lasted five weeks and three days; recovered.

CASE 2.—M., aged two years; commenced on left knee, from a small sore; extended to the ankle and but little above the knee; symptoms: rapid pulse, furred tongue, bowels regular; lasted seven days; recovered.

CASE 3.—M., aged ten months; commenced at elbow, extended over the whole arm and forearm; an abscess formed; symptoms: slight cough, occasional vomiting, pulse very frequent, the highest 220; recovered.

CASE 4.—F., aged one year and eight months; commenced below the right knee, from an impetiginous sore; extended over the entire leg and the trunk as far as the umbilicus; symptoms: fever, bowels rather loose; lasted seven days; recovered.

CASE 5.—F., aged nine months; commenced at vulva; extended over the abdomen and chest, down the arms to the fingers, then along the back and over the legs; the face and head alone escaped; symptoms: high fever, moderate diarrhoea; lasted eighteen days; recovered.

CASE 6.—M., aged nine days; commenced at the genital organs; extended over both lower extremities, the abdomen, to the umbilicus, and along the back to the head; sloughing of the genitals; symptoms: diarrhoea, very quick pulse, fretfulness, accelerated respiration; lasted six days; died apparently exhausted.

CASE 7.—F., aged one year; commenced at vulva; extended over both legs, the body, both arms, the neck, ears, and scalp; symptoms: fever, green dejections; lasted six weeks; recovered.

CASE 8.—F., aged six weeks; commenced at or near the

ear; extended over the side of the face and the forehead; symptoms: fever, sometimes spasms; lasted one week; died in tetanic spasms.

CASE 9.—Aged nine months; commenced in epigastric region; extended over body and legs; lasted two weeks; died in tetanic spasms.

CASE 10.—F., aged ten months; commenced near the commissure of the mouth; extended over the entire face and scalp; lasted ten days; recovered.

CASE 11.—F., aged four weeks; commenced at vulva; extended over both legs, the entire trunk, both arms, the neck, and ears, reappeared in places; abscesses on the feet; symptoms: bowels regular; lasted three weeks; died exhausted.

CASE 12.—F., aged three months; commenced at vulva; extended over abdomen to the umbilicus, and over the right leg; symptoms: digestive organs regular; lasted two weeks; recovered.

CASE 13.—F., aged four to five months; commenced at vulva; extended over both legs, the trunk, except the chest, and over both arms; symptoms: fretfulness, fever, bowels regular; lasted from three to four weeks; died exhausted.

CASE 14.—F., aged five months; commenced around syphilitic sores, near the anus; extended over both legs and the trunk; symptoms: restlessness, very quick pulse; regular bowels.

CASE 15.—F., aged three months; commenced at vulva; extended over both legs, the entire trunk, and both arms; symptoms: restlessness, no diarrhoea; lasted three weeks; recovered.

CASE 16.—M., aged eight months; commenced on the face, near the nostrils; extended over the trunk and all the extremities; abscesses in different places; symptoms: green and frequent dejections; lasted from one to three weeks; recovered.

CASE 17.—F., aged four months; commenced at vulva; extended over the entire trunk and all the extremities; symptoms: diarrhoea, fretfulness; lasted one week; died exhausted.

CASE 18.—F., aged seven months; commenced at the knee; extended over both legs and a portion of the body; lasted three weeks; recovered.

CASE 19.—F., aged six months; commenced near the ear; from an excoriation; extended over the entire face, closing the eyes; symptoms: slight febrile action, bowels regular; lasted ten days; recovered.

CASE 20.—M., aged seven days; commenced on the left eyelid; extended over left cheek; symptoms, violent fever, coma; lasted three days; died comatose.

CASE 21.—M., aged fourteen days; commenced at the genitals; extended as far down as the knees, and upon the abdomen and back as far as the ribs; gangrene of the genitals; symptoms: thirst, constipation, frequent pulse, convulsions; lasted four days; died in convulsions.

CASE 22.—M., aged three months; commenced under the chin; extended over the chin and the left cheek; then down the neck and left side of the trunk and over the left leg; symptoms: constipation, at first the bowels about regular, but stools green; moderate pulse, about 120.

CASE 23.—F., aged two years and four months; commenced at the right shoulder; extended over the arm and forearm; symptoms: fever, constipation, convulsions; lasted one day; died in convulsions.

CASE 24.—F., aged three or four days; commenced at vulva; mother syphilitic; extended over the body and all the limbs; lasted about twelve days; died.

CASE 25.—F., aged three and a half months; commenced under the left ear from an abscess; extended over the neck, chest, and arms; symptoms: fever, restlessness, convulsions; lasted from one to three weeks; died.

CASE 26.—Aged seven months; commenced below the right knee, and not from a sore; extended over all the extremities, trunk, neck, and head; symptoms: fever, bowels changeable, sometimes loose, with green stools, sometimes regular; lasted two weeks; died comatose.

CASE 27.—F., aged six months; commenced at vulva; extended over nearly the entire trunk and the legs as far as the knees; lasted three days; died comatose.

CASE 28.—M., aged nineteen months; commenced near the point of vaccination, and the second day after the insertion of the virus; extended over the shoulder, arm, and forearm, reappeared once or twice in places; symptoms: tongue slightly furred, bowels regular, fretfulness, high fever; lasted twenty-one days; recovered.

CASE 29.—M., aged four months and three days; commenced near the point of vaccination, and after the scab had fallen; the pock presented the usual appearance; extended over both arms, forearms, and the chest; symptoms: great restlessness, green stools, and rather frequent, slight cough, pulse very frequent; lasted two weeks; recovered.

CASE 30.—F., aged two months; commenced near the vaccine vesicle, and five or six days after vaccination (not a good vesicle); extended over both arms, the trunk, and both lower extremities; lasted ten days; died exhausted.

CASE 31.—Aged three or four months; commenced near the vaccine vesicle nine or ten days after vaccination; extended over the arm, forearm, and shoulder on one side; symptoms: diarrhoea, fever; lasted two to three weeks; died.

CASE 32.—F., aged four months; commenced near the vaccine pock at the ninth day after vaccination; extended over the arm and trunk; cellulitis with abscesses; symptoms: fever; died exhausted in two months.

CASE 33.—M., aged two months; commenced near the vaccine pock the seventh day after vaccination; extended to every part of the body successively; lasted one week; died with peritonitis.

CASE 34.—M., aged five and a half months; commenced on left arm after vaccination; extended over the arm; suppuration of axillary glands and of the back of the hand; symptoms: restlessness; constipation, and finally regular bowels; recovered.

CASE 35.—M., aged two and a half months; commenced at the arm twenty days after vaccination; extended from the elbow to the shoulder; symptoms: intense fever; tympanitis; lasted seven days; died.

CASE 36.—M., aged eight months; commenced at the arm nine days after vaccination; extended over the entire arm and forearm; symptoms of broncho-pneumonia on the seventh day; oozing of blood from the surface vesicated by arg. nit.; lasted seventeen days; died.

AGE.—Of the above cases, twenty-four were at or under the age of six months; nine from six months to twelve, and only three above the latter age, showing greater frequency of erysipelas in the first six months of infancy.

In forty-nine cases in which I have ascertained the point of commencement, it was in thirteen cases, the vulva; sixteen, the arm from vaccination; six, the leg; five, the face; three, the male genital organs; two, at or near the ear; one, the elbow; one, the shoulder; one, the chin; one, the nates.

The frequency with which the disease begins at the vulva from some irritation, or perhaps uncleanness of these parts, renders the female infant more liable to be attacked than the male. In the table of cases it will be seen that there were fourteen males to nineteen females. It will be seen from the table also, that only in about one case in nine, was the erysipelas facial. There is then this difference between adult and infantile erysipelas; that the part on which the disease usually originates in the one period of life, is exceptionally the point of commencement in the other. In a large proportion of cases, the rash commences at or near some point of inflammation or irritation, though the exceptions are not infrequent. From the table we see it may commence around the inflamed auditory meatus; around the point of vaccination immediately after the insertion of the virus, or when the pock is developed, or again when it has run its course and been detached. It may commence around impetiginous or syphilitic eruptions, around burns and suppurating sores, and again at parts

where the skin is delicate, as the vulva in the female, or the commissure of the mouth.

CAUSES.—Among those causes which predispose to infantile erysipelas, impure air, uncleanliness, and defective alimentation hold a principal place. Hence it occurs chiefly among the poor. It is more common in the city than in the pure air of the country, and in dispensary and hospital than in civil practice.

In a large proportion of cases there is also an exciting cause, usually, as we have seen, some trifling inflammation of the skin. Vaccination as an exciting cause of erysipelas demands particular notice. Often, no doubt, it is the inflammation which necessarily arises from the cut or the vesicle, which excites the erysipelatous affection, and not any deleterious property in the virus used, so that the same inflammation occurring in any other way, as from a burn, would be attended by a like result. But facts go to show that the virus itself is sometimes in fault. Thus a little girl was vaccinated in November last, and about the time the vesicle began to fill, she was seized with severe inflammation of the throat, attended by the pseudo-membranous deposit as shown by the microscope, and by swelling and induration of the cellular tissue of the neck, so that the disease was supposed to be diphtheria. This swelling suppurated and discharged, and the inflammation of the fauces rapidly subsided, and within a week from its commencement the throat affection had nearly or quite disappeared. As the girl was otherwise healthy, and the vaccine vesicle passed through the usual stages, and presented the usual appearance, the scab was employed six weeks after to vaccinate two infants. Within twenty-four hours after vaccination both these infants were seized with high fever, ushering in severe erysipelas, commencing in one around the point of vaccination; in the other, around syphilitic sores, near the anus. In the one the erysipelatous rash extended from the shoulder over the entire extremity, and was very obstinate; in the other, it extended over both lower extremities, and a considerable part of the trunk, when the case passed into the hands of another physician, and the result is not known. The vaccine disease did not appear in either case. In another instance a well known physician of this city vaccinated three children, one his own, No. 32, in the table of cases, with the same virus, being careful to have the lancet clean. On the seventh day after vaccination these children were all taken with erysipelas, his own dying. Another physician informed me, that he not long since vaccinated, with the scab, two children in the same family, with all the precautions that he had ever used, and both were soon after taken with severe and pretty extensive attacks of erysipelas, extending from the point of vaccination, the vaccine disease not appearing. Such cases render it probable that the vaccine virus may sometimes contain a latent deleterious property which may give rise to erysipelas. The lymph is probably less likely to produce this result than the scab, which contains more or less animal matter.

In the very young infant erysipelas can sometimes be traced to the mother. Dr. Condie, in his *Treatise on Diseases of Children*, 4th edition, page 553, says, "Erysipelas of infants very commonly occurs during the prevalence of epidemic puerperal fever; children of mothers, who become affected with the fever, are often born with erysipelatous inflammation; others are attacked almost immediately after birth. Whether in these cases the disease is to be referred to a morbid matter applied to the skin in the womb, or to the same epidemic or endemic influence which gives rise to the disease of the parent, it is difficult to say. According to M. Trousseau infantile erysipelas is principally observed when puerperal fever prevails in the wards of the Lying-in hospitals of Paris. The infants appear to him to inherit from their mother a *purulent diathesis*, and seem to be still, within certain limits, subject to the same maladies as the mother."

A case showing this relation of erysipelas in the infant to disease of the mother occurred in the practice of Dr. Leaming of this city. A lady gave birth to a healthy child, on

the 27th of July, 1860. Within a few days after her confinement she was seized with a chill, followed by erysipelas, commencing on the thighs, and terminating fatally on the 17th of August. No autopsy was made, and it is not certain whether she had internal inflammation. A few days before her death the same disease commenced on the child. It extended around the neck, upon the ears, down the arms, and finally terminated fatally on the 24th of August.

The most remarkable cases in point were related to me by Dr. Folsom of this city, and through his kindness I am enabled to give the history of them in his words. "About the year 1840, being then in practice in New Bedford, Mass., I was called to visit a man, who complained of pain in his knee. The next morning he was easier, but the following evening his symptoms grew worse, and as I was engaged in a case of obstetrics my partner, Dr. Elijah Colby, now dead, visited him. At my call next morning I unexpectedly found the patient dying. The disease was obscure, and at the autopsy next day, no lesion was discovered. In making the examination, Dr. Colby pricked his fingers, and feeling little inconvenience at first from it, he attended a case of confinement on the following morning. A few hours subsequently he was taken sick, and I took charge of the lady, who died in three days, having the tumid abdomen and symptoms of child-bed fever. The infant of this lady was seized when two days old with erysipelas, appearing on the face, and in spots on the face and limbs, and terminating fatally in one day. Dr. Colby's finger became swollen and painful, and the lymphatics of the forearm and arm inflamed, as shown by the red lines, and finally the axillary glands suppurated. Though feverish, and much prostrated, there was no appearance of erysipelas in his case. In about two weeks he resumed practice, and as at that time physicians were not fully aware of the danger of communicating puerperal fever, he attended two three or four obstetrical cases a week, until the number reached fifteen. All the mothers died with the symptoms of metropéritonitis, and all the infants had erysipelas, commencing on the face, or some parts of the body, generally the second or third day after birth, and in all terminating fatally within a week. This mournful record was finally ended by the doctor temporarily retiring from practice." Such cases, instead of being common, as Dr. Condie states, are certainly rare in New York, and the oldest physicians with whom I have conversed, have almost without exception never seen a case, in which erysipelas of the infant was in any way connected with erysipelas or puerperal fever of the mother. This relation is probably noticed chiefly in hospitals, and during epidemics of malignant erysipelas in private practice.

Premontory Symptoms.—Infantile erysipelas in the majority of cases has no premonitory stage, or if present, it escapes notice. Sometimes, however, there are well marked precursory symptoms, as drowsiness or restlessness, fever, oppressed respiration, with perhaps vomiting and starting, or twitching of the limbs. In case No. 28, the fever, restlessness, and oppressed respiration were so great for three days before the appearance of the eruption as to cause much anxiety.

Symptoms.—The child is usually restless; the expression of the face and the moaning indicate how intensely he feels the burning pain. In severe cases there is very little sleep night or day, unless from medicine. Sometimes, when convulsions are threatened, the short slumbers are interrupted by sudden starting. Fever is always present, proportionate to the gravity of the disease. I know no other disease in which the pulse may be so frequent in favorable cases. I have notes of such cases, in which it numbered over two hundred beats per minute. The skin is dry and hot; the face often flushed; the tongue moist and covered with a slight fur; the stomach usually retentive. The condition of the bowels varies; sometimes they are regular, sometimes variable, and in other cases the stools are green, and more frequent than natural. From our record of cases it will be seen the bowels were regular in seven, loose in

nine, constipated in two, constipated then loose in one, constipated then regular in one. The looseness, when present, is usually moderate, requiring little or no treatment. The rash does not in all cases have such a deep red color as in the adult, but otherwise there is nothing peculiar in its appearance. There is sometimes vesication, as in the adult, and subsequently the same desquamation and œdema. If the infant is debilitated there is great danger of the formation of abscesses around which the inflammation lingers after it has disappeared from every other part of the body. Sometimes also in very young infants gangrene occurs, especially of the genital organs in the male. Several of these cases have been narrated to me, all under the age of a month or six weeks, and all proved fatal. Sometimes the sloughing is so great as to denude the testicles. A noteworthy feature of erysipelas in the child is its proneness to return. When it has been progressively subsiding, and hope is entertained of its speedy disappearance, it is not unfrequently suddenly relighted from unknown causes, travelling again over the same, or parts of the same surface. In one case the disease arising from vaccination extended three times over the arm and forearm, and in another case it spread a second time over both legs, and a considerable part of the trunk.

Prognosis.—Infantile erysipelas, though less frequent, is more fatal than erysipelas of the adult. According to the reports of the City Inspector of New York, for the years 1858-59 and 1860, there were eighty deaths from erysipelas in this city at the age of one year and under, while above that age through all periods of life there were only eighty-three deaths. Statistics to which I have access, show an excess of deaths from this disease, among infants in Providence, R. I., and in the states of Massachusetts, Kentucky, and South Carolina, though the disproportion is not so great as in New York.

There is probably no other infantile disease in which age so much influences the prognosis. Infants under six weeks very rarely live; from six weeks to six months recovery is doubtful; above the age of six months, a large majority recover under correct treatment. From the records published above, it will be seen that six infants had erysipelas under the age of six weeks, and all died; from the age of six weeks to six months six recovered, and nine died; and above the age of six months nine recovered, and four died. With the exception of a case of the so-called umbilical erysipelas, the youngest child who recovered of whom I have obtained any information, was three weeks old. In this case the rash extended nearly over the whole body, beginning with the face. It is scarcely necessary to state, that the disease is more favorable, when it affects the limbs, than when it invades the body, neck, or head; when it spreads slowly than rapidly; when it is superficial rather than phlegmonous. In those cases in which the cellular tissue is much involved the infant is not always safe, after the disease has run its course. He sometimes dies exhausted from the discharge of abscesses. I have sketches of two such cases.

Duration.—In thirteen cases that recovered the disease terminated within the first week in two, the second week in five, the third week in four, and in two cases it lasted five and six weeks. The average duration was fifteen days. In eighteen fatal cases, ten died within the first week, four the second week, three the third week, and one in the fourth week. The average was nearly ten days.

Mode of Death.—Death occurs in different ways; in convulsions, in coma, in a sort of tetanic spasm in the very young child; it may occur also from mere exhaustion, and from internal inflammation. The most common cause in the cases of which I have notes, was exhaustion.

Pathological Anatomy.—In the oldest treatise on diseases of children to which I have access, viz. Heberden's *Epitome Morborum Puerilium*, the pathological condition in infantile erysipelas is expressed in one sentence, "When the body has been opened after death, the intestines have been found glued together, and covered with coagulable lymph." Since Heberden's time, nearly all who have

written on diseases of children have mentioned peritonitis as one of the most common complications of erysipelas. Underwood says, "Upon examining several bodies after death, the contents of the body have frequently been found glued together, and their surface covered with inflammatory exudation, exactly similar to that of women who have died of puerperal fever."

Bouchut says, "As already remarked, peritonitis is, according to M. Barron, one of the most constant alterations in young children, who die from the disease we are now considering. In the *post-mortem* examinations we have made, we did not observe in the other organs any change which deserves to be mentioned."

Billard's observations have been different. "Upon examining the bodies of sixteen children that died, I found in two gastro-enteritis, in ten enteritis, in three pneumonia complicated with enteritis and cerebral congestion, and in one pleuro-pneumonia."

It is probable, that in young infants in Hospitals, peritonitis is common, but in older infants in private practice its presence is not so frequent.

Judging from the symptoms, the remarks of Billard would apply, rather than those of Underwood and Bouchut, to the disease as it occurs in New York. There is not usually sufficient abdominal tenderness and distension for peritoneal inflammation. In case No. 32 this inflammation was undoubtedly present, and perhaps in a few other cases; but where there was any internal disease the symptoms generally indicated enteritis. In only one of the cases in our collection was a *post-mortem* examination made, and in this no morbid appearance was observed in the viscera.

Treatment.—I have been surprised to find with what uniformity this disease is treated in this city. Nearly all physicians who have stated to me their mode of treatment, give the *tr. ferri muriat.* in ordinary cases, though the entire disease, and I have not met a physician who did not recommend the sustaining treatment. Beef tea and wine they are commonly advised, and nothing recommended that will in any way lower the vital powers. With such unanimity, it is curious to notice the treatment recommended across the Atlantic. Bouchut says: "We should endeavor from the first, to allay the inflammation of the skin by energetic treatment. * * * Local abstraction of blood by means of one or two leeches applied at the circumference of the primary seat of the erysipelas, should be put in force, provided the power of the constitution of the children permits." Such treatment may explain one of Bouchut's aphorisms: *The erysipelas of infants is a fatal disease.*

The largest dose of the *tr. ferri muriat.* given in any of the cases, was in No. 4; ten drops every two hours to a child twenty months old, and this patient recovered in seven days from a pretty severe attack. Quinine was occasionally given as a tonic, and in one or two when the fever was intense the *spiritus mindereri*. Complications, if sufficient to require treatment, were treated as in other cases.

There is very general disapproval in this city of local treatment designed to circumscribe and arrest the disease, unless occasionally over a small extent of surface. The solid nitrate of silver was employed in two cases of which I have notes, and in both the result was not such as to encourage its use. Troublesome sores were produced, from which blood escaped, and in one at least death was attributed by the parents to this rather than to the disease. The *tinc. iod.* is more used, but there is in many a disbelief in its efficiency to arrest the disease in the infant. Local treatment designed to moderate the intensity of the inflammation does not differ materially from that used in adult cases.

DIABETES, THE RESULT OF DISEASE OF THE 4TH VENTRICLE.—The *Gaz. des Hop.* reports two cases of diabetes, which, on *post-mortem* examination, disclosed softening of that portion (anterior) of the wall of the fourth ventricle, which gives origin to the pneumogastric nerve. These cases, with many similar ones on record, go to confirm the theory of Bernard in relation to the production of sugar in the liver.

Reports of Hospitals.

NEW YORK HOSPITAL.

J. L. LITTLE, HOUSE SURGEON.

STAB-WOUNDS OF CHEST. WOUND OF DIAPHRAGM AND LIVER. WOUND OF INTERCOSTAL ARTERY. DEATH. AUTOPSY.

STEPHEN GOODWIN, aged 36, admitted Feb. 1, 1861. (Dr. Buck, attending surgeon.) Patient a short time before admission was attacked by four sailors, knocked down, and stabbed in the chest. On admission he was suffering severely from the shock of the injury; surface cool; pulse small and weak; respiration hurried and painful. On examination three wounds were found, two of which were superficial. The principal wound was about three-quarters of an inch in length, and situated on the right side between the eighth and ninth ribs, in a line with, and about six inches below, the anterior fold of the axilla. Air and blood made their escape from the wound.

Treatment.—A compress of lint placed over the wound, and a body bandage applied. Heater applied, and fifteen drops of Magendie's solution of morphia administered. Ordered one grain of opium every hour.

Nine hours after injury. Pulse 120. Respiration 30, and labored; five drops of Tinc. Aconiti Rad. ordered to be given every alternate hour with the opium.

Thirty-eight hours after, patient complained of very severe pain in his side during respiration; eight ounces of blood were taken from the right arm, which relieved the pain for the time.

Forty-eight hours after injury patient died.

Post-mortem Examination.—Six pints of dark blood were found in the right pleural cavity. The lung was collapsed, and pressed against the vertical column. The pleuræ costalis and pulmonalis were covered with a deposit of fibrin about one-sixteenth of an inch in thickness. The wound was found to extend through the diaphragm and into the liver to the depth of one-quarter of an inch. The wound of the lung could not be found. The eighth and ninth ribs were removed at their angle, and on dissection the lower margin of the eighth rib was found to be nicked to the depth of a quarter of an inch. The intercostal artery and vein were found to be entirely divided. The hemorrhage into the pleural cavity was attributed to this cause. No effusion of blood into the abdominal cavity. Other organs in a normal condition.

Stab-wound of Chest—Wound of Lung—Recovery.—Warren Wendell aged 21, colored. Admitted May 17th, 1861 (Dr. Buck, attending surgeon), having sustained just before admission a stab-wound of the chest inflicted by a dirk-knife in the hand of an unknown man.

Patient after reception of the injury walked without assistance to the Hospital, a distance of about a quarter of a mile. When admitted he was suffering from painful and labored respiration; irritating cough; and frothy bloody expectoration. Pulse 98, full.

On examination, a wound about three quarters of an inch in length was found situated on the left side, about an inch to the left of the nipple. A probe introduced gently, passed downwards, backwards, and outwards, for the distance of an inch. No emphysema around wound. Slight hemorrhage from wound.

Treatment.—Edges of wound brought together with a strip of adhesive plaster, and a compress applied. Two grains of opium were given, to be followed by a grain every hour—low diet ordered. *Five hours after injury.* Respiration somewhat easier. Pulse 80.

Twenty-one hours after. Pulse 108. Respiration 30. In addition to the opium, patient took five drops of the Tinc. Verat. Virid. Two hours after, the dose was repeated, pulse a short time after the second dose was reduced to 90; respiration 20, and much easier.

Patient coughs considerably, expectoration frothy, and stained with bright blood. Complains of severe pain in side while coughing.

From this time the patient continued to take one grain of opium every hour, which seemed to keep up a moderate degree of narcotism. Third day after injury, patient complained of increased pain in the region of the wound. Wet cups were freely applied, and succeeded in relieving the pain. Cough not so severe, and less blood in the expectoration. Pulse 80. Respiration 18. Fourth day, patient doing well, ordered to take opium gr. j. every three hours.

From this time he continued to improve, and on the eighth day left the Hospital, complaining only of a slight pain in the neighborhood of the wound on deep inspiration.

American Medical Times.

SATURDAY, JUNE 22, 1861.

THE RIGHT MAN FOR THE RIGHT PLACE!

"The right man for the right place," is the cry of the hour; and a very good cry it is too.—*North British Review.*

THE war of the Crimea taught the British Government a lesson of great and permanent value. It saw one of its best equipped, most thoroughly provisioned, and apparently most formidable armies, gradually brought into a state of comparative inefficiency, and almost helplessness, through a series of blunders the result of official incompetency. The troops, half clothed, perished with cold, while ship-loads of warm clothing were within their sight; they toiled incessantly in snow and frost, half-famished, while the luxuries of living filled the commissariat; they perished of fever, dysentery, and cholera, in unprovided hospitals, without medical treatment, while hospital stores crowded the apothecary's department. The heart of the English people was touched by the tales of suffering, misery, and death, which came from their friends and brethren, and soon was heard the cry of popular indignation from one end of the realm to the other, and the imperious demand:—THE RIGHT MAN FOR THE RIGHT PLACE!

If the British Government, with all its experience, could commit so grave a mistake as to instal unqualified persons in high or responsible positions in the perilous times of war, how infinitely greater is our danger of falling into this irremediable error? Our General and State Governments are profoundly ignorant of the art of war; they know nothing of its exigencies, its requirements, its laws, or its spirit. The former has for years had but a handful of half-famished troops on its borders, guarding the settler from the attacks of savages; hundreds of half-finished fortifications falling to decay, for lack of interest in their completion; and a school for military training, the educational nursing of the sons of a few Congressmen; while the latter have allowed their military laws to become a dead letter, or have abolished them altogether. Among the people at large the sword has literally been beaten into the ploughshare, and the spear into the pruning-hook; and their entire devotion to the arts of peace, and of a Christian civilization, might have been taken as a proof that they would learn war no more.

But suddenly the General Government summons from the States a vast army, and demands its immediate rendezvous at the National Capital; the State Governments respond with alacrity, and here our short-comings first appear. The State military offices have been filled without regard to the qualifications of the candidates. Too often the incumbent has not only been utterly ignorant of his duties during his entire term, but what is especially to be deplored, incompetent to their proper fulfilment, should the emergency occur. The general complaint that now reaches us from every encampment proves but too conclusively the truth of our remarks. The military spirit of the people being aroused, the supply of troops greatly exceeds the demand. The preparation of the outfits of this army opens a vast system of stock-jobbing, which is eagerly welcomed by the thousands who are ready to "turn a penny" by any new adventure. The weak and imbecile officials readily become the tools of designing men, and exercise the functions of their offices without discretion, or for mercenary purposes. As a consequence, the troops have been clothed with garments that would shame a convict, and have been entertained with food that rendered their summons to mess more to be dreaded than an order to prepare for battle.

With such a class of officers to commence the work of organizing this immense army, it is not strange that many of the most important positions have been filled by men wholly unfit for the stations to which they have attained. At every place of rendezvous this fact is apparent on the most superficial examination, and at length it has been exhibited on the field of conflict. If these fatal errors in our army organization are not remedied in time, disasters will be multiplied, and ultimate defeat is not an improbability. But it augurs well for the intelligence of our people, and the final success of our Government, that these defects are already noticed, and are eliciting the watchword of reform—THE RIGHT MAN FOR THE RIGHT PLACE!

The pertinent inquiry will arise in the mind of every patriotic physician, who has also the honor of his profession at heart—Is the medical profession of the loyal States properly represented in this great uprising of the people for the maintenance of our national Government? The simple truth is, the medical profession has as yet not a proper representation or influence in this movement. Medical men wholly unqualified for their positions have, unfortunately, too often been already installed in important offices, from which emanate other appointments of the same low grade of qualification. In one State, the question was asked by a leading paper, Who is our Surgeon-General? He was at length found, and proved to be a quack! It is not doubtful what will be the character of his subordinate officers. In another State, a surgeon, the brightest ornament of his profession, and who has a national reputation as an author, desiring to contribute his part to the good cause, early applied to the Surgeon-General of the State where he resided for the position of Medical Inspector at one of the rendezvous. He was, however, informed, by a communication from the Surgeon-General, that *no such office existed*. A few days after, the official bulletin announced the appointment, as MEDICAL INSPECTOR, at the very same rendezvous, and by the same Surgeon-General, of a man of universally acknowledged incompetency. This fact has since been proved by the re-inspection ordered by the military authorities at Washington, of the troops which

he had passed, and the discharge of large numbers as unfit for service.

The State Boards of Medical Examiners have proved, in many instances, either negligent, or culpably ignorant of their duties. We may estimate by hundreds the numbers of unqualified persons who have received the endorsement of these bodies, as capable Surgeons and Assistant-Surgeons to regiments. Indeed, these examinations have in some cases been so conducted as to prove the merest farce. Irregular practitioners, "retired physicians," disabled "political doctors," physicians unable to obtain a livelihood in civil practice from sheer incapacity, have emerged from the "Green Room" full-fledged Army Surgeons. The result of this official ignorance is now apparent; the Secretary of War has recently called the attention of the Surgeon-General of the United States to the reported incapacity of regimental surgeons of the volunteer forces at Washington, and directed a re-examination, with a view to the dismissal of those found incompetent.

In the present number will be found the Plan of Organization of the Sanitary Commission, with the names of the members. A more important commission never was organized in this country, and it reflects most creditably upon the intelligence of our highest authorities, and their disinterested zeal in behalf of the welfare of our citizen soldiers. The investigations which this commission proposes to pursue, and the defects which it will aim to remedy, are of vital interest to the army, and involve, to a certain extent, the final issue of the struggle. The medical profession have a deep interest in the success of this commission, for it is in its incipency, its duties, and its construction, a medical commission. It is, we believe, the first instance in which our Government has recognised a body as advisory in matters of a sanitary and purely medical character, independently of the medical department of the army. Our profession would gladly see this organization a permanent one. But its success depends upon the efficiency of the individual members of the commission. Distinguished as are the members of this body, and competent as they are to cope with the responsible duties which they have patriotically assumed, the medical profession will regret that the chivalrous State of Rhode Island could not have been represented by her distinguished Sanitarian, Dr. EDWIN M. SNOW; that New York could not add to its councils the knowledge of its wisest public Hygienist, Dr. JOHN H. GRISCOM; and that Pennsylvania could not contribute the ripe experience of its practical Health Officer, Dr. WILSON JEWELL. The names of many other gentlemen suggest themselves, whose life-long studies have eminently fitted them for the researches of this commission.

But we forbear to pursue this subject further. We have made these remarks in no captious or fault-finding spirit, but with a strong desire to see errors corrected, and evils removed, which if allowed will in the end prove dangerous if not disastrous. Especially do we desire to see the medical department of the volunteer army elevated above the low level of partisanship and favoritism. We trust that the re-examination of the regimental surgeons at the Seat of Government will be rigid, and that the service will be thoroughly sifted of its unqualified medical officers. Let the popular feeling, which demands that incompetent commissioned officers of the line shall retire, or fall back into the ranks, be extended to the medical department, in

all its branches, whether State or National. Let the motto of both Government and people in this struggle be:—THE RIGHT MAN FOR THE RIGHT PLACE!!

THE WEEK.

WE are glad to learn that PROF. F. H. HAMILTON has entered the Army Service as Surgeon to the Thirty-first Regiment of N. Y. State Volunteers. Whoever has examined the list of surgeons, passed by the different State Examining Committees, must have regretted to find so few names of eminent surgeons. It is especially gratifying to us to know that the State of New York is now represented in the volunteer army by the best talent of the medical profession.

THE importance of thorough vaccination of the volunteer troops was early illustrated by the occurrence of small-pox in the various camps of both the federal and confederate armies. Attention was given to this preventive measure early in the campaign by SURGEON-GENERAL VANDERPOOL, of this State. From the following extract from the *Providence (R. I.) Journal*, it appears that the officers of the Massachusetts regiments have foolishly rejected the proffered aid of a physician of great experience in vaccination, while the authorities of Rhode Island, with that intelligent foresight characteristic of all their public acts, have accepted a similar offer, and have thus secured the volunteers from the ravages of this fearful disease:—

A physician of Roxbury, Mass., well known for his experience in vaccination, writes to the *Boston Journal* that no sufficient attention has been given to the vaccination of the Massachusetts troops; that a large portion of the soldiers have never been revaccinated, and that many have never been vaccinated at all. He also says that he offered to vaccinate the soldiers free of expense; but he received intimations that his offer would be considered impertinent, and to avoid "the mazes of red tape and circumlocution" he withdrew it entirely.

We are happy to say that affairs are differently managed in Rhode Island. The offer to vaccinate the soldiers of the second regiment gratuitously has been cordially accepted, and the vaccination has been thoroughly performed by Drs. Snow, Collins, and Ely.

THE following order has been issued by the Surgeon-General of the United States Army, DR. FINLEY, to facilitate the labors of the new Sanitary Commission:—

SURGEON-GENERAL'S OFFICE, June 15, 1861.

A Sanitary Commission having been ordered by the President of the United States to examine into the condition of the Volunteers, with reference to Police Regulations, Hospital Supplies, and other subjects connected with the Hygiene of the troops, it is enjoined upon all Medical Officers of the Army and Volunteers to render every facility for such objects, and to give the Commission admission, when on visits of inspection, into all Hospitals, Regimental and General.

C. A. FINLEY, *Surgeon General, U. S. A.*

It is gratifying to notice the fact that the introduction of female nurses into our military hospitals is very favorably reported. A corps of nurses recently arrived at Camp Defiance, Cairo, Ill., under the direction of Mrs. Yates, "Matron of the Illinois Military Hospitals," who has been accepted by Miss Dix, on the part of the Government, and authorised to exercise full powers in the management of the nursing. A correspondent of a city paper says:—"Its

beneficent effects are already seen; men, at best, are out of place in the sick room; but women are nurses by instinct. The dull eyes of the hospital invalids brighten at their approach, and voices grow husky in attempting to express their gratitude. One poor fellow, a private in the Ninth Regiment, who died of typhoid fever this morning, gratefully recognised his nurse, almost at the last moment, long after he had ceased to notice any one else. * * This tender care for the soldier is the one redeeming feature of modern war." This will be acknowledged as a truthful compliment to women, as nurses, by every one who is familiar with hospital practice.

CLEMENT A. FINLEY, M.D., recently promoted to the office of Surgeon-General of the United States Army, is a native of Ohio. He entered the army as assistant-surgeon on the 10th of August, 1818, nearly forty-three years ago, and was promoted to the rank of surgeon on the 13th of July, 1832. He was the senior surgeon in the Medical Department of the army, and entitled to the promotion. The senior surgeon of the army, now, is Dr. Satterlee.

IN another column will be found the Plan of Organization of the Sanitary Commission, which has been called into existence by the exigencies of the present war, with the names of those composing the commission. We cannot sufficiently commend the liberal and enlightened spirit of our authorities, who have so cordially welcomed to their aid this body of co-workers on the part of our volunteer soldiers. We may justly anticipate the very best results from the labors of this commission, if it carries out fully the several branches of inquiry proposed in the plan of organization.

THE efforts of voluntary associations to supply hospital stores, clothing, &c., have been regarded by some citizens with disfavor, as this duty was alleged to belong to the Medical Department of the Army. Those who have been interested in these patriotic labors will be glad to learn from the following letter by DR. EDWARD B. DALTON, of this city, late Resident Physician of St. Luke's Hospital, that they have not labored in vain. The letter was directed to the N. Y. Medical Association, through which these supplies are forwarded to the several points where they will be most useful:—

U. S. GUN-BOAT QUAKER CITY, Chesapeake Bay,
Monday, June 10, 1861.

DEAR SIR:—The packages of lint, bandages, and hospital stores arrived all right according to list yesterday. I cannot sufficiently thank you and the Association you represent for your promptness and liberality in meeting my request, for they have not only supplied me with what I was most grievously in need of for those under my own charge, but have also brought comfort to the sick and wounded of the various regiments collected in and about Fort Monroe, just at a time when such assistance was most needed, and when, but for your timely generosity, many a brave fellow would have suffered for the lack of those necessities and comforts which it has been impossible to provide here. If the ladies to whom we owe the supply of these articles could but know the relief they afford to injured and disabled men, and to the minds of those who are responsible for their proper care, I am sure they would desire no other return for their self-sacrifice. The melancholy affair near Hampton occurred this morning, and the wounded were brought in barges to the fort hospital, just as I had got the goods on board the Quaker City. I at once went on shore and offered to Dr. Cuyler, the Surgeon-in-Chief of

the post, whatever of their contents could be made use of, and I assure you he was most glad to get it—especially the bedding, of which there is a great scarcity here, and which the sudden influx of patients to the hospital most strenuously called for. Dr. Heath, the Surgeon of the new gun-boat *Daylight*, which arrived here to-day, also came on board this afternoon, and was much gratified at the opportunity of obtaining a supply of several articles with which he had failed to furnish himself before sailing. Both these gentlemen are desirous of expressing their keen appreciation of the efforts of the ladies and the profession in New York in this matter. There are many others hereabout who must be in a similar condition; and I shall take pains to refer them to you immediately.

PLAN OF ORGANIZATION

FOR THE COMMISSION OF INQUIRY AND ADVICE IN RESPECT OF THE SANITARY INTERESTS OF THE UNITED STATES FORCES.

THE Commission naturally divides itself into two branches, one of *Inquiry*, the other of *Advice*, to be represented by two principal Committees, into which the Commission should divide.

I. INQUIRY.—This branch of the Commission would again naturally subdivide itself into three stems, inquiring successively in respect of the condition and wants of the troops:—1st. What *must* be the condition and want of troops gathered together in such masses, so suddenly, and with such inexperience? 2d. What *is* their condition?—a question to be settled only by direct and positive observation and testimony. 3d. What *ought* to be their condition, and how would Sanitary Science bring them up to the standard of the highest attainable security and efficiency?

SUB-COMMITTEES OF BRANCH OF INQUIRY.—*A.* Under the first Committee's care would come the suggestion of such immediate aid, and such obvious recommendations as an intelligent foresight and an ordinary acquaintance with received principles of sanitary science would enable the Board at once to urge upon the public authorities. *B.* The second Sub-Committee would have in charge, directly or through agents, the actual exploration of recruiting posts, transports, camps, quarters, tents, forts, hospitals; and consultation with Officers, Colonels, Captains, Surgeons, and Chaplains, at their posts, to collect from them needful testimony as to the condition and wants of the troops. *C.* The third Sub-Committee would investigate, theoretically and practically, all questions of diet, cooking, and cooks; of clothing, foot, head, and body gear; of quarters, tents, booths, huts; of hospitals, field-service, nurses, and surgical dressers; of climate and its effects, malaria, and camp and hospital diseases and contagions; of ventilation, natural and artificial; of vaccination; anti-scorbutics; disinfectants; of sinks, drains, camp sites, and cleanliness in general; of the best method of economizing and preparing rations, and changing or exchanging them. All these questions to be treated from the highest scientific ground, with the newest light of physiology, chemistry, and medicine, and the latest teachings of experience in the great continental wars. Probably these Committees of Inquiry could convert to their use, without fee or reward, all our medical and scientific men now in the army, or elsewhere, especially by sending an efficient agent about among the regiments to establish active correspondence with surgeons, chaplains, and others, as well as by a public advertisement and call for such help and information.

II. ADVICE.—This branch of the Commission would subdivide itself into three stems, represented by three Sub-Committees. The general object of this branch would be to get the opinions and conclusions of the Commission approved by the Medical Bureau, ordered by the War Department, carried out by the officers and men, and encouraged, aided, and supported by the benevolence of the public at large, and by the State governments. It would subdivide itself naturally into three parts. 1. A Sub-Com-

mittee, in direct relation with the Government, the Medical Bureau, and the War Department; having for its object the communication of the counsels of the Commission, and the procuring of their approval and ordering by the U. S. Government. 2. A Sub-Committee in direct relation with the army officers, medical men, the camps and hospitals, whose duty it should be to look after the actual carrying out of the orders of the War Department and the Medical Bureau, and make sure, by inspection, urgency, and explanation, by influence, and all proper methods, of their actual accomplishment. 3. A Sub-Committee in direct relation with the State governments, and with the public associations of benevolence. First, to secure uniformity of plans, and then proportion and harmony of action; and finally, abundance of supplies in moneys and goods, for such extra purposes as the laws do not and cannot provide for.

SUB-COMMITTEES OF BRANCH OF ADVICE.—*D.* The Sub-Committee in direct relation with the Government, would immediately urge the most obvious measures, favored by the Commission, on the War Department, and secure their emphatic reiteration of orders now neglected. It would establish confidential relations with the Medical Bureau. A Secretary, hereafter to be named, would be the head and hand of this Sub-Committee—always near the Government, and always urging the wishes and aims of the Commission upon its attention. *E.* This Sub-Committee, in direct relation with the army officers, medical men, the camps, forts, and hospitals, would have it for its duty to explain and enforce upon inexperienced, careless, or ignorant officials, the regulations of a sanitary kind ordered by the Department of War and the Medical Bureau; of complaining to the Department of disobedience, sloth, or defect, and of seeing to the general carrying out of the objects of the Commission in their practical details. *F.* This Sub-Committee, in direct relation with State authorities and benevolent associations, would have it for its duties to look after three chief objects. First.—How far the difficulties in the sanitary condition and prospects of the troops are due to original defects in the laws of the States or the inspection usages, or to the manner in which officers, military or medical, have been appointed in the several States, with a view to the adoption of a general system, by which the State laws may all be assimilated to the United States regulations. This could probably only be brought about by calling a convention of delegates from the several loyal States, to agree upon some uniform system; or, that failing, by agreeing upon a model State arrangement, and sending a suitable agent to the Governors and Legislatures with a prayer for harmonious action and co-operation. Second.—To call in New York a convention of delegates from all the benevolent associations throughout the country, to agree upon a plan of common action in respect of supplies, depots, and methods of feeding the extra demands of the Medical Bureau or Commissariat, without embarrassment to the usual machinery. This, too, might, if a convention were deemed impossible, be effected by sending about an agent of special adaptation. Thus the organizing, methodizing, and reducing to serviceableness, the vague, disproportioned, and hap-hazard benevolence of the public, might be successfully accomplished. Third.—To look after the pecuniary ways and means necessary for accomplishing the various objects of the Commission, through solicitation of donations, either from State treasuries or private beneficence. The treasurer might be at the head of this Special Committee.

OFFICERS.—If these general suggestions be adopted, the officers of the Commission might properly be a President, Vice-President, Secretary, and Treasurer. *President.*—His duties would be to call and preside over all meetings of the Commission, and give unity, method, and practical success to its counsels. The *Vice-President* would perform the President's duties in his absence. The *Secretary* should be a gentleman of special competency, charged with the chief executive duties of the Commission, in constant correspondence with its President; be resident at Washington,

and admitted to confidential intimacy with the Medical Bureau and the War Department. Under him such agents as could safely be trusted with the duties of inspection and advice in camps, hospitals, fortresses, etc., should work, receiving instructions from, and reporting to, him. He would be immediately in connexion with the Committees A and B of the Branch of Inquiry, and of Committees D and E of the Branch of Advice. The *Treasurer* would hold and disburse, as ordered by the Commission, the funds of the body. These funds would be derived from such sources as the Commission, when its objects were known, might find open or make available. Donations, voluntary and solicited; contributions from patriotic and benevolent associations, or State treasuries, would be the natural supply of the cost of sustaining a commission whose members would give their time, experience, and labor to a cause of the most obvious and pressing utility, and the most radical charity and wide humanity; who, while unwilling to depend on the General Government for even their incidental expenses, could not perform their duties without some moderate sum in hand to facilitate their movements. The publication of the final report of the Commission could be arranged by subscription or private enterprise.

As the scheme of this Commission may appear impracticable from apprehended jealousies, either on the part of the Medical Bureau or the War Department, it may be proper to state, that the Medical Bureau itself asked for the appointment of the Commission, and that no ill-feeling exists or will exist between the Commission and the War Department, or the Government. The Commission grows out of no charges of negligence or incompetency in the War Department or the Medical Bureau. The sudden increase of volunteer forces has thrown unusual duties upon them. The Commission is chiefly concerned with the volunteers, and one of its highest ambitions is to bring the volunteers up to the regulars in respect of sanitary regulations and customs. To aid the Medical Bureau, without displacing it, or in any manner infringing upon its rights and duties, is the object of the Commission. The embarrassments anticipated from etiquette or official jealousy have all been overcome in advance, by a frank and cordial understanding, met with large and generous feelings by the Medical Bureau and the Department of War.

OFFICERS.—Henry W. Bellows, President; Prof. A. D. Bache, Vice-President; Elisha Harris, M.D., Corresponding Secretary; George W. Cullum, U. S. Army; Alexander E. Shiras, U. S. Army; Robert C. Wood, M.D., U. S. Army; William H. Van Buren, M.D.; Wolcott Gibbs, M.D.; Samuel G. Howe, M.D.; Cornelius R. Agnew, M.D.; J. S. Newberry, M.D.; George T. Strong, Treasurer.

WAR DEPARTMENT, WASHINGTON, June 13, 1861.

I hereby approve of the plan of organization proposed by the Sanitary Commission, as above given; and all persons in the employ of the United States Government are directed and enjoined to respect and further the inquiries and objects of this Commission, to the utmost of their ability.

SIMON CAMERON, *Secretary of War.*

ORGANIZATION OF COMMITTEES.—*Committee of Inquiry.*—Wolcott Gibbs, W. H. Van Buren, Elisha Harris, S. G. Howe, C. R. Agnew; the President, Secretary, and Treasurer, ex-officio.

Committee of Advice.—A. D. Bache, Robert C. Wood, G. W. Cullum, A. E. Shiras; the President, Secretary, and Treasurer, ex-officio.

Sub-Committees.—A.—H. W. Bellows, A. E. Shiras, C. R. Agnew. B.—The Secretary; W. H. Van Buren, G. W. Cullum, S. G. Howe. C.—W. H. Van Buren, E. Harris, W. Gibbs, C. R. Agnew, G. T. Strong. D.—The Secretary; A. D. Bache, R. C. Wood. E.—The Secretary; G. W. Cullum; A. E. Shiras. F.—C. R. Agnew, H. W. Bellows, G. T. Strong; the Secretary.

Reviews.

A PRACTICAL TREATISE ON PHTHISIS PULMONALIS, embracing its Pathology, Causes, Symptoms, and Treatment. By L. M. Lawson, M.D., Professor of Clinical Medicine in the University of Louisiana, Visiting Physician to the New Orleans Charity Hospital, etc. S. S. & W. Wood, New York.

It would seem, at first view, that a treatise on the tubercular disease, appearing at this late day, must be little more than a compilation, or rehash of the writings of previous observers. For the most industrious and efficient laborers in medical science, among whom Louis may be mentioned as a conspicuous example, have studied this subject most carefully and minutely. Still, we consider the treatise of Dr. Lawson a valuable addition to medical literature. It is written in a perspicuous and candid style, as if the writer were anxious to ascertain the truth, rather than to establish any theory.

It contains, in addition to the important facts which other observers have ascertained, on the subject of tubercles, valuable statistics prepared from the author's own observations. The volume is an octavo of more than five hundred pages, and is divided into four parts. The first relates to the pathology of phthisis; the second to the etiology; the third to the semeiology, and the fourth to the therapeutics. A brief enumeration of the important topics discussed in these divisions of the work will give the reader an idea of its character and scope. In the first part, the following subjects are discussed: The tuberculous constitution, percursor stage of phthisis, tubercular deposits, explaining the physical characters, varieties, histology, and chemistry, of the tubercle. Condition of the blood determined by the microscope, and by chemistry; and of the lymph and chyle; state of the secretions; deposit of tubercle, and the changes which occur in tubercular deposits, and in the tissues, consequent on softening and elimination of tubercles; secondary and intercurrent lesions, and finally a chapter is added on the nature of phthisis.

In Part II., the causes of phthisis are described under three heads; first, the congenital predisposition; secondly, causes which may induce phthisis independent of an hereditary predisposition, as the climate, occupation, ingesta, etc.; thirdly, pathological inducing causes, as inflammation, congestion, asthma, pertussis, the essential and eruptive fevers.

Part III. relates to the symptoms, according to the stage and variety of phthisis, and Part IV. to the therapeutics.

It will be seen that the plan of the work is comprehensive, and the topics discussed for the most part useful and interesting. The fact that the work is largely statistical, increases our confidence in the views expressed; and yet we must not forget that statistics frequently give us only an approximation to the truth, there are so many sources of error, so many modifying conditions, which are likely to escape the notice of the statistician. These statistics are no doubt as free from error as the nature of medical statistics will allow them to be.

To the American practitioner, the treatise especially commends itself, on account of the facts it contains, relating to the influence of the climate of the United States on phthisis. From the great extent of our national territory, the meteorological conditions vary in different parts, and with these variations diseases change. The facts collected by the author go to show that "consumption originates far less commonly in the Southern than in the more Northern regions, and that it gradually but perceptibly diminishes from Maine to Florida." The census returns and the bills of mortality collated by Dr. Lawson, appear to substantiate this statement, although a different opinion has been held by many. The physician should know those localities in

which there is comparative immunity from phthisis, and these can be ascertained only by figures. We believe from the excellent plan of this book, and the research and ability with which it is written, that the demand will insure the publication of other and improved editions, as time increases our knowledge of the important disease of which it treats.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

STATED MEETING, April 24, 1861.

DR. GARRISH, CHAIRMAN PRO TEM.

FIBRO-NUCLEATED TUMOR OF BRAIN.

DR. SANDS presented a specimen of apoplexy with tumor of the brain, and gave the following history of the case:—I was called, about half-past six o'clock on day before yesterday morning, to see a man who it was said had a fit. On arriving at his house, I obtained the following account of him. It appears that he was a bar-keeper, had been out until midnight, and came home in his usual health, and went to bed. About five o'clock, a person sleeping in the same room with him was awakened by a noise, and on getting up, he found the patient on the floor, endeavoring to seize the neck of his night-shirt, to tear it from him, saying something in an almost inaudible voice to the effect that he was poisoned. His companion immediately sent for a physician, who, on arriving, said nothing could be done, and left. I soon after arrived, and found the patient dying. The surface was cold; the respiration nearly extinct, it having been, according to the account of the persons present, stertorous; the pulse 120 per minute; the pupils widely dilated, and the patient entirely insensible. He died whilst I was there. Of course, the case came under the notice of the coroner; and I was present at the autopsy, which was made by Dr. Boughton, to whom I am indebted for the specimen. The patient, I should remark, was known to be a hard drinker, and in consequence had had several attacks of delirium tremens. The kidneys were about the usual size, but granular upon their surfaces, with a good deal of atrophy of the cortical portion. The heart presented thickening of the mitral valve, and some atheromatous deposit at the origin of the aorta, and the aorta itself presented patches of the same material. The principal post-mortem appearances that were interesting were found within the cranium. It will be seen, on examining this brain, that the tuber annulare has a very much greater breadth than it should have; and this increase in the width is evidently due to its distension by an apoplectic clot. (The parts afterwards being laid open, this was found to be the case.) This clot in this situation accounts for the sudden death of the patient. Almost accidentally there exists another morbid condition of the brain, which I suppose had nothing to do with his illness or death. The calvarium was removed in the usual manner; but when the dura mater was cut through on the left side by a scalpel, it was noticed to pass through a soft substance which was not brain matter. Care was then taken to see what was the trouble, when a tumor was discovered, developed from the arachnoid surface of the dura mater. This tumor is hemispherical in its shape, its flattened surface being the point of attachment, the convex surface crowding upon the surface of the hemisphere without showing any signs of inflammation in the vicinity. The greatest breadth of the tumor is about an inch and a half; its surface is finely lobular, and presents a very vascular appearance. I have examined this tumor somewhat hastily by the microscope. It contains a very appreciable amount of connective tissue, which is disposed in bands running in various directions, many of them having a concentric direction inclosing circular spaces. These spaces appear to be filled partly with

nuclei and partly with cells. The tumor I take to be one of a very rare form, to which Mr. Bennet, the Edinburgh physician, has given the name of fibro-nucleated—a name adopted by Mr. Paget—and in his opinion the tumor is closely allied to those known as fibro-recurrent. The nuclei abound considerably above the cells; they are oval, and contain either one or two nuclei. Both the nuclei and nucleoli are very minute, the average long diameter of the former being $\frac{3}{800}$ of an inch. The cells are exceedingly slender, and correspond in appearance with those found in the fibro-recurrent tumor. Notwithstanding the tumor seems to have existed a considerable length of time, there were, according to the account of one of his friends, no brain symptoms at any time present, excepting the occasional attacks of delirium tremens. The deceased was thirty-seven years of age.

DR. GARRISH stated that he had met with four cases of tumors of the brain, two situated in the cerebrum, and two in the cerebellum. In the two former cases brain symptoms, in the form of epilepsy, were manifest during life, but in the two other cases no cerebral disturbances showed themselves. He asked the experience of the members in relation to the matter.

DR. KRACKOWIZER stated that he attended a woman in confinement who, at the post-mortem examination, had a fibroid tumor in one of the corpora striata. In that case the patient suffered from intense headache during the latter part of her life. He remembered also a specimen of tumor of the arachnoid surface of the dura mater, presented by Dr. Conant; in that case the symptoms of brain trouble extended back quite a number of years.

DR. SEWALL referred to a case of abscess of the left hemisphere, which, from appearances, lasted a great while; but the patient suffered from no brain symptoms until within two weeks of her death. The abscess contained ill-conditioned pus, and was lined with a thick, solid pyogenic membrane. The patient was forty-five years of age.

The Society then adjourned.

MONROE COUNTY MEDICAL SOCIETY, NEW YORK—FORTY-FIRST ANNUAL MEETING.

THIS Society met for its Forty-first Annual Session on Wednesday, the 12th inst., at the Common Council Chamber, City Hall, at 10 o'clock A.M., and, in absence of the President, was called to order by the Vice-President, Dr. WHITBECK. In order of business, the minutes of the last annual and special meetings were read, corrected, and approved.

DR. REID, Chairman of the Committee on Publication, reported progress: one hundred copies of certificates of membership have been printed under their supervision. On motion of Dr. Langworthy, the report was accepted.

DR. ARMSTRONG, Chairman of Committee on Medical Ethics, reported that the resolution re-committed to them at the previous meeting of the Society, was revised, and, together with a memorial, presented to the State Medical Society at its last annual session.

Committees on Medical Topography, Insanity, and Pauperism, reported unprepared. On motion of Dr. Dean, the Committees were continued, and instructed to report at next annual meeting.

DR. ARMSTRONG, Chairman of the Committee on Endemics and Epidemics, made a lengthy report, which, on motion, was accepted by the Society.

DR. LANGWORTHY, Chairman of Committee on Medical Jurisprudence, made an able report in a paper, having for its subject the Inadequacy of our Civil Laws to prevent Criminal Abortion. In conclusion, he offered the following resolutions, which were adopted:

Resolved, That in view of the enormous increase of Criminal Abortion, and the inadequacy of the present laws to properly punish the offenders, the Society request the N. Y. State Medical Society to press upon the notice of the Legislature the memorial presented to them by the American Medical Association on this subject.

Resolved, That our Secretary is hereby instructed to transmit a copy of these resolutions to the Secretary of the State Society at Albany.

The following committees were appointed by the Chair: Drs. Dean, McNaughton, and Bangs, Committee on Credentials. Drs. Langworthy, Reid, and Bly, Committee on Nomination of Officers.

The following resolutions were offered by Dr. Langworthy, and adopted by the Society:

Resolved, that this Society unite in a hearty "God-speed" to those of our fellow members who have gone forth to battle in behalf of our beloved country, in this her hour of peril.

That, while we give them the credit of being in the van, still, when the "long roll" shall beat, and surgical reinforcements are called for, there will be found among us a "reserved corps," whose homes thenceforth shall be the tented field, until the last watch-fire is extinguished of this unnatural and unjust rebellion.

Resolved, that as it will surely come, so will we hail the day when the glorious old flag of Saratoga shall proudly wave from Point Isabel to Madawaska, and from Nootka Sound to Key West.

Adjourned to meet at two o'clock P.M.

AFTERNOON SESSION.

The Society reassembled at two o'clock, and was called to order by the President, Dr. Moore.

Committee on Credentials reported favorably on the application of Isaac V. Mullen to membership; the report was accepted, and Dr. Mullen duly declared a member of the Society.

DR. DEAN, chairman of Committee on Obstetrics, submitted his report, which was accepted.

The President then delivered his address; subject, Medical Science.

On motion of Dr. Langworthy, the Society tendered a vote of thanks to the retiring President for his able address.

Committee on Nomination of Officers made the following report, which was accepted; and on motion of Dr. Bly, that the by-laws be suspended, the officers were elected by *viva voce* vote. For President, Dr. R. C. Reynolds; Vice-President, Dr. Reichenbach; Secretary, Dr. Arner; Treasurer, Dr. Bly; Censors, Drs. McNaughton, Bangs, Whitbeck, Armstrong, and Mullen; State Delegates, Drs. Bly, Ely, and Dean; Delegates to the American Medical Association, Drs. Reid, Langworthy, Moore, and Bly.

On motion of Dr. Bly, a tax of one dollar was levied on each member of the Society.

On motion of Dr. Langworthy, the Secretary was directed to draw orders on the Treasurer of the Society for the payment of the annual tax due to the State Medical Society, and such other bills as have been presented to the Society.

The Treasurer then submitted his report, which was accepted, when, on motion of Dr. Armstrong, the Society adjourned.

to the surface. Reaction was not fully established until the fourth day, when simultaneously was developed the eruptions in its confluent form. I then substituted the chlorate of potash for lime and quinine. The delirium soon subsided; and the disease ran its course regularly, through the several stages, with far less secondary fevers during the suppurative period than I had been led to believe would follow. And her symptoms were less severe than several others that were less violently attacked. She suffered not at all from dyspnoea, during the suppurative stage, which is so constant a symptom in variola, and which was so common with the others, that had been treated with acet. ammon., rochelle salts, and a Dover's powder, to induce sleep or rest. One of the number, a young lady of full habit and excellent health, was threatened with suffocation for several days. She could not rest in a horizontal position, but required a semi-erect posture to enable her to get her breath. In this suffering and distressed condition of the patient I resorted to the use of the chlorate, which, after its continuance for some twenty-four hours, appeared to give her great relief, and allowed her to resume the horizontal posture again, without suffering any inconvenience therefrom. The symptoms during the invasive stage were less severe by far than those narrated earlier, yet the dyspnoea that was so alarming in the former case as a symptom, failed entirely to be developed in the latter. The remaining cases amongst the first attacked were children, so that the subjective systems could not be so correctly gathered; but the threatenings of suffocation in none of them were so imminent, although complained of by several of the older ones. The result of the previous cases induced me to adopt the remedy in all the subsequent ones—sixteen. In the latter number there were some as well-developed cases of the confluent form as in the former. They appeared equally severe, and one, perhaps, even severer than any of the former ones. Yet in no instance did they suffer or complain of symptoms of suffocation. What to attribute it to other than the remedy—chlorate of potash freely used—I know not.

At two different times earlier in my practice, the disease appeared amongst us, and from one-half and two-thirds of the number of cases there were two and three deaths, while in the last instance there were none.

That the difference was in the grade of the disease, I am not prepared to admit; or that the latter was a more favorable class of subjects to resist the ravages of the disease. But, on the contrary, the last was the least favorable of all, both as regards type and subject, so that to the remedy I am disposed to ascribe a liberal share of the success and beneficial effects, after adopting its use.

J. T. READ, M.D.

Fairfield, Greene Co., Ohio, June 15, 1861.

Correspondence.

CHLORATE OF POTASH IN VARIOLA.

[To the Editor of the AMERICAN MEDICAL TIMES]

SIR:—I see a reference to the use of Chlorate of Potash in Small-pox in your issue of April 20th. This details but a single case, that of a pregnant female, in which the remedy had been prescribed. The author wished, perhaps, to call attention more to the condition of the patient and her uninterrupted state, than to the remedy employed for the mitigation of the disease. I wish, on the contrary, to call attention to the remedy itself as applicable to the disease.

During the months of March and April, I treated some twenty-two cases of Small-pox. They were of a mixed variety, as is usually the case, five being confluent. When called to the first set of patients, on the second day of the attack in the case of a young lady, reaction had not been established. Her pulse was 140, respiration labored, great thirst, and delirium during the full period of invasion. I ordered wine and quinine internally, and diffusible heat

FOREIGN CORRESPONDENCE.

[Letter from DAVID P. SMITH, M.D.]

EDINBURGH.

Jan. 30, 1861.—Professor Simpson said that in practice, however one might theorize, when the forceps was applied to the head above the brim of the pelvis, it must be done with reference to the parts of the mother. It is in fact the only way it can be done. The cause of stoppage at the brim is almost always projection forwards of the promontory of the sacrum, and when the forceps is applied one blade comes just before and the other just behind an ear.

Jan. 31.—Mr. Syme explained his method of operating for the radical cure of hernia. He replaces the bowel in the abdomen by pushing his forefinger up the inguinal canal, of course invaginating the integuments upon it. Then, having the tip of the finger just hooked under the internal oblique, he passes upon his finger as a guide two long needles, one along each margin of the finger. These needles are threaded with a cord which draws up into the invagination anything that will serve as a retaining cylinder, a bit of bougie, or candle. These needles having been thrust

through the sac, internal oblique, and superincumbent tissues just at the tip of the finger, the cord that they carry is tied over a pad of something that will prevent the knot ulcerating into the integuments. This procedure, Prof. S. holds to be perfectly safe and easily executed, and what is especially to be desired, effectual. The next case was one of cancerous ulcer of seven years' duration, situated under the mamma of a female, which chloride of zinc seemed competent to remove. Next a case of enlarged tonsil was shown, which, although not indurated, was judged to be cancerous and irremediable, because it was entirely confined to one side, and the submaxillary glands were enlarged, and the patient bore an unhealthy aspect. A patient now presented himself with carious disease of the knee-joint, necessitating amputation, which had been in progress fourteen years. Prof. S. remarked that although the long continuance of the disease made the operation dangerous, yet the youth of the patient, who was only twenty years of age, gave a favorable aspect to the case, and that in consequence he advised amputation. Caries and necrosis often are present together, caries *in* and necrosis *about* the same joint. The next patient, a young woman of twenty, presented a tumor on the palmar aspect of the forearm, neither subcutaneous nor connected with bone, movable laterally but not longitudinally. Mr. S. pronounced it to be a neuroma of the median nerve, and on proceeding to remove it the diagnosis was substantiated. At least six inches of the nerve were included in the tumor, which was say two inches in diameter, and was entirely removed. An infant was then shown with a small nevus upon the upper lip. Very properly, as Mr. S. remarked, vaccination had been performed upon it, but obliteration had not been effected. Nitric acid was now applied by pins, which were thrust into it in every three ion.

LONDON.

Feb. 11.—To-day, after spending the morning in St. Bartholomew's dissecting rooms, I listened to Mr. Skey, on Anatomy, and to Dr. Burrows, on Hydrocephalus. True to his surgical instincts, Mr. Skey is disposed to hasten over the immaterial portions of anatomy, and spend his strength upon the practical points. The most of his lecture to-day was occupied in strictly defining the exact position of the vessels at the root of the neck, particularly insisting upon the position of the left brachio-cephalic vein, directly behind the upper bone of the sternum. Dr. Burrows's lecture was eminently instructive, and possessed great interest to me because his account of acute hydrocephalus most accurately coincided with my painful experience of the disease.

Feb. 12.—This afternoon at two o'clock, I went to the famous Guy's Hospital, situated on the south side of the Thames. Mr. Cock operated for contraction of the little finger, produced by a burn. A V-shaped incision was made on the palmar aspect of the finger with its open part towards the carpus; the finger then fully extended upon a splint; and wet lint placed upon it so as to allow it to heal by granulation. Mr. Hilton then performed a very similar operation upon a cicatrix involving the anterior fold of the armpit, also leaving it to heal by granulation. The last operation was one for defective union of a hare-lip, performed by Mr. Birkett, and presented nothing of interest except its being done in such a manner as to positively necessitate the leaving of a notch in the red margin.

Feb. 13.—After as usual spending four or five hours in the dissecting-room, I went to the University College Hospital, where I saw Mr. Erichsen perform Wutzer's operation for cure of reducible hernia, and also strangulate a nevus, excise some carious bone from the tarsus, and operate upon varicose veins of the lower extremity. In regard to the last named operation, Mr. E. stated that he did it because great bleeding had repeatedly occurred from the varicose ulcers, and also because he considered the passing of pins beneath the veins, and twisting thread over them and upon a piece of bougie placed under, so as to protect the skin, as perfectly safe.

Feb. 14.—My time to-day was almost entirely spent in

the dissecting-room, and the time I took to ride out to St. George's afforded me only the benefit of listening to a few very hurried clinical remarks from Mr. Hawkins. He treats delirium tremens with large doses of opium, gin, and quinine.

Medical News.

ARMY INTELLIGENCE.

SECOND VERMONT REGIMENT.—Surgeon, H. N. Ballou; Assistant Surgeon, B. W. Carpenter. The *Burlington Free Press* thus speaks of these appointments:—"Doctors Ballou and Carpenter are well fitted by character, experience, and standing as men and in their profession, for their responsible posts, and the health of the Regiment can be committed to their care with entire confidence. There will be no neglect of sick soldiers, from the booziness of the surgeons, while they retain their posts, nor will the assistant be heard to wish that he had under his care a regiment of raw *Irishmen*, instead of 'these Vermonters, who thought they must be treated like gentlemen.'"

ONEIDA (N.Y.) REGIMENT.—Surgeon, Alonzo Churchill; Assist. Surgeon, J. E. West. ST. LAWRENCE (N.Y.) REG'T (16th).—Surgeon, W. Blair Crandall, of N. Y. City; Assist. Surgeon, John E. Moores, of Plattsburg. CAYUGA (N.Y.) REG'T.—Surgeon, Theodore Dinond; Assist. Surgeon, B. Howard.

ARMY SURGEONS APPOINTED.—The following appointments reported for the approval of the War Department were made at the session of the Army Board of Medical Examiners lately held in this city:—Wm. A. Hammond, Pa.; J. P. Wright, Pa.; H. M. Sprague, Conn.; Charles C. Gray, N. Y.; Wm. C. Spencer, N. Y.; F. L. Town, N. H.; Alex. Ingram, Ohio; Peter V. Schenek, N. J.; J. W. S. Gouley, La.; Dallas Bache, D. C.; John H. Frantz, Pa.; Webster Lindsley, D. C.; C. E. Goddard, N. Y.; H. R. Silliman, Pa.; P. C. Davis, Va.; Joseph S. Smith, Va.; C. J. Wilson, D. C.; James E. Weeds, Ohio; Charles B. White, N. Y.; G. M. Sternberg, N. Y.; B. E. Fryer, Pa.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT.—The Annual Commencement of this Institution took place on the 13th inst. Twenty candidates received the degree of M.D. from the President, Rev. Dr. PEASE. This school maintains its reputation with the profession unabated, notwithstanding the tendency of medical teaching to centralize in the large cities.

CEPHALIC PILLS.—A correspondent of the *Rural New Yorker* says:—"Taking other papers, I get four columns of Cephalic Pills a week. As these are to be continued through the year, I already have the assurance of two hundred and eight columns. These, united, would make a ladder reaching to the skies. Laid upon the ground it would rival in length, and in other ways, the famous sea serpent. Used as an anger and run into the ground, 'it would go deep enough for an oil well,' and constitute, as you and your readers must all admit, the biggest kind of a 'bore.'"

HOSPITAL OF THE MEDICAL COLLEGE OF VIRGINIA, AT RICHMOND.—This hospital, erected at a cost of more than \$20,000, is now open for the reception of patients. Its plan is admirably adapted to the purposes of its construction, and it is provided with every convenience requisite for the comfort and successful treatment of the sick. The patients are under the immediate care of the Professors of the College. The charges, for board, medical attendance, &c., are, for white patients, \$6 per week; colored patients, \$5 per week; private rooms, \$7 to \$15 per week. In addition to these weekly rates, a charge, varying from \$2 to \$30, will be made for Surgical Operations. Attending Surgeons, Profs. GIBSON, PETICOLAS, and WELLFORD. Attending Physicians, Profs. TUCKER, CONWAY, and McCaw. Resident Physician, ISAIAH H. WHITE, M.D.

Original Lectures.

CLINICAL LECTURE ON MORBUS COXARIUS

DELIVERED AT BELLEVUE HOSPITAL, Dec. 19, 1860.

By L. A. SAYRE, M.D.

REPORTED BY W. K. CLEVELAND, M.D.

In compliance with the request of a number of the students of this Hospital, I shall offer a few remarks this afternoon in connexion with that diseased condition of the hip-joint, known as morbus coxarius, a disease the pathology and treatment of which at the present time are eliciting unusual interest in the professional mind. But before I enter upon a description of this disease, with the treatment adapted to its varied stages, allow me to lay before you, in brief, the anatomy of the hip-joint.

The articulation of the head of the femur with the acetabulum, is, as you all know, of the enarthrodial variety—the ball and socket joint. The ligaments of this joint are five in number, namely, the capsular, a firm ligamentous membrane, embracing the acetabulum superiorly, and the neck of the femur inferiorly; the ilio-femoral, a strong fibrous band, which arises from the anterior inferior spinous process of the ilium, and is attached to the anterior intertrochanteric line of the femur, adding strength to the anterior surface of the capsular ligament; the cotyloid, a fibro-cartilaginous band that completes the circle of the acetabulum, rising above its margin, and thereby increasing its cavity;—the transverse, a name applied to that portion of the cotyloid which bridges across and converts into a foramen the notch of the acetabulum, through which pass the articular vessels and nerve; and the ligamentum teres, a small, round ligament, connecting loosely the head of the femur with the inferior margin of the acetabulum. I say loosely, because it evidently serves more as a means of support to the interarticular vessels than as a ligament proper to the joint. The head of the femur and the cotyloid cavity are covered with a cartilage of incrustation, except at those points that give attachment to the ligamentum teres, and at a small depression in the cotyloid cavity, which contains sebaceous matter, and is known as the fundus acetabuli.

This joint is provided with an extensive synovial membrane, which invests the head of the femur and the ligamentum teres, and is reflected upon the internal surface of the acetabulum and the capsular ligament. The hip-joint, in common with other joints of the body, is subject to a variety of pathological conditions; but I propose to confine my remarks at this time to that special, arthritic condition which is known, par excellence, as morbus coxarius. The nature and causes of this disease have been of late years a matter of much discussion with the profession, the great majority regarding the disease as connected by necessity with, and originating in, and from, the strumous diathesis; that scrofula and hereditary syphilis are the nidus whence this disease alone can arise. But this is a decidedly erroneous view of the truth; a view that is being rapidly dissipated by constantly developing facts. That morbus coxarius may arise in children whose constitutions have been vitiated by the sins of their ancestors, no one will attempt to deny; for such children are evidently more liable to the disease than those are who stand upon a firmer constitutional basis. But that morbus coxarius may arise in a child whose constitution is uncontaminated by hereditary taint, and who is perfectly healthy, the observations of every day fully substantiate. I believe that many have attributed the source of this disease to a strumous origin, simply from the *appearance* of the patient, whose emaciated spanæmic condition is regarded as the *cause*, when it is in reality the *result* of the disease. I have seen children of perfectly healthy constitutions, in whom the disease arose from an evident traumatic cause, so

reduced in the course of a few months by the pain and sleeplessness attending the disease, as to present in a very marked degree, appearances which strongly simulate the strumous cachexia. And I have seen robust health and the ruddy cheek restored to these same children by timely surgical aid, together with proper constitutional treatment.

The immediate exciting causes of this disease are numerous and varied, being in some slight and but faintly marked; in others, well marked and palpably evident. While in some, whose constitutions are delicate, the disease will frequently arise merely from exposure after violent exercise; such exposure, for instance, as sitting upon the damp ground or a cold stone, when in a state of heated perspiration: in others, whose constitutions possess more of the resisting *vis naturæ*, it requires the infliction of some direct traumatic violence to the part, such as a wrench, or a fall, etc. What I wish to establish, is this—that, although the disease in different individuals arises from very different causes, *yet it never arises in any individual from a purely idiopathic or constitutional cause*. Morbus coxarius may be divided, for the sake of convenience of description, into three stages, each of which is characterized by its own distinctive symptoms.

First Stage.—The symptoms in the earlier part of this stage are often very feebly pronounced; more especially is this the case when the inflammatory action going on in the joint is of that low, sub-acute, asthenic character so frequently observed in persons of the strumous habit. They are sometimes referred to the knee and not to the hip, a fact that not infrequently has misled the unwary examiner, and, as a consequence, caused the infliction of the most unmerited abuse upon the knee, in the form of blisters, setons, etc. The child will limp when he attempts to walk, and when standing will rest the weight of his body upon the well limb, the diseased one being thrown forwards; the flexion of the diseased joint when compared with that of the well one, is limited. This difference in the flexibility of the joints is almost diagnostic of the disease. Pressure applied to the limb at any point, in such a manner as to bring the head of the femur forcibly into the acetabulum, produces pain, which pain is instantly relieved by the removal of this pressure. If a careful examination be made by pressure and extension, there will be no difficulty in making an accurate diagnosis; but if the ligaments are involved, as they sometimes are, in rheumatic inflammation, then *extension* increases the pain, and pressure relieves it. If, however, the synovial membrane, cartilage, or bones be involved, then pressure aggravates the pain intensely, and extension, gradual and constant, entirely relieves it. It is a remarkable fact that synovial membrane, in common with all other serous membranes, possesses very little sensibility when in a state of health, yet when in a state of inflammation it is acutely sensitive.

Second Stage.—Should this inflammation progress unrestricted, it will readily produce effusion within the capsular ligament, and which, if considerable, will occasion a peculiar deformity of the parts, namely, an *apparent* elongation of the limb; *eversion* and abduction; flattening of the nates, the rima natis on the diseased side being lower than on the sound side; flexion of the thigh upon the pelvis, and the leg slightly flexed upon the thigh. If the effusion be excessive or the inflammation acute, you will have an apparent ankylosis, caused by muscular contraction, which is an involuntary act produced by reflex action of the inflamed, irritated nerves, and is for the purpose of keeping the joint perfectly still. The flexor muscles of the thigh, the tensor vaginæ femoris, the pectineus and rectus femoris are so firmly contracted that the whole pelvis moves on the articulation of the opposite side. This rigidity does not depend upon true or bony ankylosis, for by division of the tendons of the contracted muscles or puncture of the joint, you will have free motion of the limb, showing that no bony adhesion existed.

Third Stage.—If the disease be not arrested, the acetabulum becomes perforated, or ulceration and rupture of the

capsule take place; and the fluid, whether synovia, pus, or plastic lymph, becomes effused into the surrounding tissues, burrowing in various directions, and forming femoral abscesses. The peculiar change that takes place in many instances, upon the rupture of the capsule, in all the symptoms, and the suddenness of the occurrence, have led to the false idea that a luxation had taken place. When the capsule is thus ruptured, if no attachments have already occurred, the limb becomes *apparently* shorter, adducted, inverted, flexed in hip only, pelvis raised and projected backwards. In fact, the position is almost the reverse of what it was in the second stage. This change from the second to the third stage is *sudden* when the opening in the capsule is large, and allows of the rapid and total escape of its contents into the surrounding tissues; and *gradual*, if the opening is small and fissure-like. I have seen the former take place in a night, and the latter require weeks to accomplish the change. There are extreme cases, in which this change may not take place, although the effusion may have escaped from the joint. Such cases are those in which the head of the femur has broken through the acetabulum, by which it is held firmly in its place. I will take the trouble, even at the expense of being considered tautological, of arranging side by side, for more easy reference, the symptoms of the two last stages of the disease.

Second Stage.

Limb (apparently) longer.
 " adducted.
 " everted.
 " flexed in both joints.
 Foot touches the ground with sole.
 Toes everted as in fracture of neck.
 Pelvis lowered on diseased side.
 " projected forward.
 " angle of inclination acute.
 Nates low and flat.
 Linea inter nates inclined towards affected side.
 Pain most intense.

Third Stage.

Limb (apparently) shorter.
 " adducted.
 " inverted.
 " flexed in hip-joint only.
 Foot touches with ball only.
 Toes inverted as in post. sup. luxation.
 Pelvis raised.
 " projected backward.
 " angle of inclination almost right.
 Nates high and round.
 Linea inter nates deviates from affected side.
 Pain greatly diminished.

Diagnosis.—Morbus coxarius may be confounded with sacro-iliac disease. In the first and second stages of coxalgia we may have elongation of the limb; this always occurs in sacro-iliac disease; but in coxalgia the elongation is discovered by measurement from the anterior-superior spinous process of the ilium, to the internal malleolus, the elongation being caused by effusion into the hip-joint. If the disease is between the sacrum and ilium, this measurement between the malleoli and superior spines of either side will be equal, and the elongation will be found to be dependent on the displacement of the diseased ilium itself, which is tilted forwards, and rotated or slipped downwards, owing to the swelling and destruction in the affected articulation. The anterior spine is not only lower down than its fellow of the opposite side, but is pushed forward, and is much more prominent; and this is not produced by any obliquity of the pelvis consequent on a twist of the spine, as in hip disease, but by the tilting forwards and rotation downwards of the whole of the diseased side of the pelvis. The seat of pain is also different in the two diseases. In hip disease it is most acute when pressure is applied firmly above and behind the trochanter major, or when compression is exercised against the anterior part of the hip-joint through the pectineus muscle. In sacro-iliac disease little or no pain is experienced when pressure is made in these situations; but tenderness is elicited by pressure upon the sacrum, and along the line of the sacro-iliac synchondrosis, behind and altogether away from the hip-joint. The movements also which occasion pain in the two diseases are entirely different. In hip disease, abduction or rotation outwards aggravates to a greater or less degree, often to an

intolerable extent, the sufferings of the patient; but in sacro-iliac disease the thigh may be moved in all directions, abducted, adducted, rotated, flexed, or extended, when the patient is on his back, without any increase of pain, *provided the side of the pelvis be immovably fixed by an assistant at the time.* Should this precaution of holding the pelvis immovable not be observed, the movements of the thigh will be communicated to the diseased articulation of the ilium and sacrum, and necessarily occasion suffering.

For a differential diagnosis of most of the other diseases with which morbus coxarius may be confounded, and which are too numerous to be mentioned at this time, I will refer you to my forthcoming report on "morbus coxarius," which contains an elaborate collection of such diseases, in a convenient, tabulated form.

Treatment.—Until within the last few years, little had been done by surgeons in the treatment of this disease. It was customary to leave it to the vis medicatrix naturæ, a force that was sometimes found so conservative as to save the life of the patient, preserving for him a withered, malformed, ankylosed limb, specimens of which we have doubtless all seen. It was an opinion entertained by some surgeons of respectable position, that if the bones of the joint are involved in caries, there is little or no hope for the patient. Even so high an authority as Mr. Syme, asserted that if the head of the femur be carious (which implied, in his estimation, a carious condition necessarily of the acetabulum), the patient *must die!* But it affords me great pleasure, gentlemen, to be able to-day to disprove in the most unanswerable manner, that broad assertion of Mr. Syme. And this pleasure does not arise from a consideration of being able to point out the errors and refute the statements of so deservedly great a man as Mr. Syme, but rather from the fact that I am able to give you such tangible, such cheering evidence of the progress of conservative surgery.

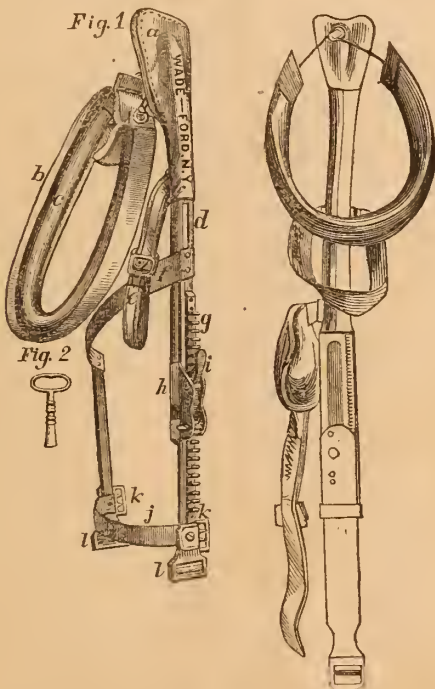
Treatment in First Stage.—In the treatment of this disease in its first stage, local depletion by cups or leeches is often necessary, with a relaxed condition of the bowels. But the most important of all, and on which all prospect of success will depend, is rest of the joint and perfect freedom from pressure of the inflamed synovial surfaces, together with such constitutional remedies and general support of the system as may be requisite in each particular case. Having subdued the inflammation in the joint by the means indicated, the child is placed in bed and subjected to the effect of extension in the manner in which I shall point out. Two pieces of strong adhesive straps are placed along the sides of the limb for nearly its whole length. These straps are held firmly in place by two additional straps going spirally around the limb, and a roller bandage extending from the toes to the pelvis. To the lower end of these lateral straps are sewed two pieces of narrow webbing, which are united below the foot. To this webbing is attached a cord running over a small pulley at the foot of the bed, and supporting a weight of from four to ten pounds. The weight at the foot of the bed acts as the extending, and the body of the child as the counter-extending force. And in this manner, pressure is entirely removed from the inflamed articular surfaces. This mode of extension is employed during the night only; during the day the child wears a splint, which is so constructed as to effect both extension and counter-extension, and at the same time allow the patient to take exercise in the open air.

The first person to construct a splint embracing these principles was Dr. Davis, of this city, which splint I here show you. It consists, as you see, of a steel bar extending from the crest of the ilium to near the ankle, with a hinge joint near its lower extremity, at its upper extremity having an eye through which plays a catgut, that is secured to the perineal band, thus making the counter-extension. The plaster before described, terminating in the webbing, is secured to the buckle at the lower extremity of the instrument, while bent at an angle. The instrument is then straightened at the hinge joint, by which means the exten-

sion is produced, and locked, by means of a slide, which retains it in this position. The objections to Dr. Davis's splint are, the extension is not made until the instrument is brought perfectly straight, when it may be so severe as to produce excoriation of the groin, or not of sufficient power to relieve the joint from pressure. I have therefore constructed an instrument embracing the same principles, but the power is applied either by a screw, or a ratchet and cog wheel, by means of which extension may be graduated with much greater facility, by simply turning a screw, and can be increased or diminished, according to the requirements in the case, without removing the instrument. In addition to this, the pulley and ball and socket placed at the upper extremity of my instrument afford greater facility for motion, without destroying the cord playing through it. The perineal band is a strong India-rubber tubular cushion, and therefore not so likely to excoriate the parts as the flat webbing of Dr. Davis's instrument. As to the relative merits of the two instruments, it is not for me to judge; the profession will of course select according to their particular preferences. I deem these remarks necessary in order that the profession may not confound the two instruments, as they would be led to do by the remarks of Dr. A. C. Post, made in his clinical lecture, and contained in the Medical Times of December 15th, in which he says, "some modifications and improvements have been made in this splint (referring to Davis's) by Dr. L. A. Sayre, and among some it is known as Sayre's splint;" thereby confounding the one instrument with the other, and thus misleading the profession. I have therefore taken this opportunity of showing you the two instruments, in order that you may observe the essential differences between them, by which you will see that they are two perfectly distinct instruments, although both intended to accomplish the same object. I simply request that you will not confound the one with the other, as I have never made any claim to Dr. Davis's instrument.

[Dr. Sayre then exhibited one of his own splints, as well as one of Dr. Davis's, and showed the method of their application and working.

A diagram of the two instruments is here shown.]



I have recently constructed another instrument, which I regard as a very decided improvement upon the splints I

have just shown you. The principle of extension and counter-extension embraced in it is identical with that of the original splint, with this improvement, that the extension is made from above the knee instead of below it, leaving the motion of the knee-joint entirely free. This is accomplishing a desirable object, and I now employ this instrument in every instance where it can be used. There are cases, however, in which it cannot be used, as for instance in a very young child whose thigh is too short to afford sufficient surface for the attachment of adhesive plaster: nor can it be used in a case where fistulous openings are so numerous and so situated as to present the same obstacle. In these cases the original long splint is employed.

Treatment in the Second Stage.—The treatment in this stage of the disease must depend upon the condition of the joint. If the disease is of a subacute character, and the quantity of effusion small, the treatment that has been advised for the first stage may prove entirely successful in the second.

To facilitate the absorption of the effused matter, it is often advisable to strap the joint firmly with adhesive plaster.

But if the inflammation is acute, the effusion abundant, the malposition of the parts extensive, and pain excessive, the prompt removal of the morbid contents from the joints for the division of the contracted muscles becomes absolutely necessary, and never fails to afford immediate relief of all the most prominent symptoms, and to restore rest and comfort to the patient. In fact, it is the only anodyne that will assuage the pain. There are two ways of performing this operation, viz. puncture with the trocar, and free incision with the knife. If the effusion is serous, the former method is advised; if it is purulent, which may generally be determined from constitutional symptoms, the latter mode is preferable. After the contents of the joint are evacuated, the patient is placed in Dr. Bauer's "wire breeches" (for a diagram of which see my report), and treated antiphlogistically. When the inflammation is subdued and the parts healed, he is again subjected to the force of the extending weight at the foot of the bed during the night, and during the day he is placed in the splint, and allowed to go about, and avail himself of the benefit of out-of-door exercise, which, together with care and suitable after treatment, usually effects a cure in the course of a few months.

Treatment in the Third Stage.—This is the stage in which we find rupture of the capsule and escape of the effusion. It is in this stage of the disease, only, that we are driven to the extreme measure of excising the head of the femur, and the carious portions of the acetabulum, in order to save the life of the patient.

I had intended to show you, this afternoon, from my private patients, specimens in the three stages of the disease, but I have been too much employed otherwise to attend to the matter at this time. I have here, however, two children who came to my office to-day, whose history and treatment I will give you in a very brief manner; and as they both furnish specimens of the third stage of the disease, their history will be equivalent to a more didactic description of the treatment of that stage. This little boy whom you here see, is seven years of age. His parents informed me that he had enjoyed good health until some eighteen months ago, at which time, while playing upon the stairs, he fell about six feet, falling on his left hip. He soon after complained of pain, and could not walk without limping. A physician at that time being called, ordered a liniment to the part, which was applied, but did not alleviate the pain; and he could not walk without enduring much suffering. Some ten months ago he met with another fall, inflicting a second injury on the same hip; whereupon the symptoms of morbus coxarius became more aggravated. Some time after this last injury, the patient was placed under my care. This patient is evidently of a scrofulous habit, and his condition, at the time of which I speak, was truly pitiable. He was suffering from hectic, and was extremely emaci-

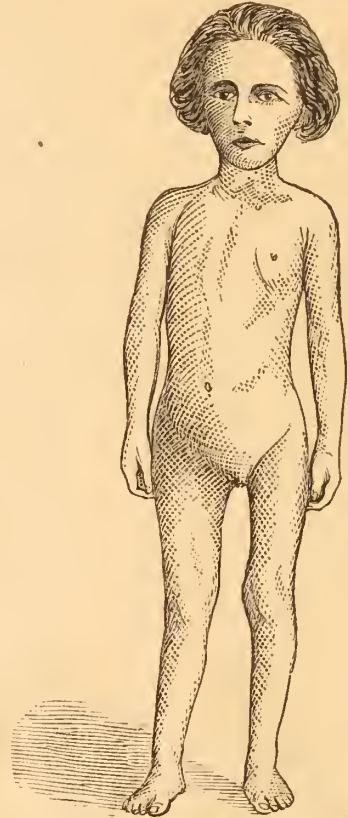
ated. Extensive abscesses existed in the external portion of the thigh, which I opened, giving exit to a large quantity of flaky, strumous pus. The tensor vaginæ femoris muscle being firmly contracted, I divided its tendon subcutaneously; after which I was able to make a more perfect examination of the joint; in which examination I discovered a sort of subcrepitus, a kind of cartilaginous crepitation, which furnished evidence of considerable erosion of the cartilage of incrustation, and disorganization of the articulation. But as there was no bony crepitus, I concluded to attempt a cure in this case without resorting to exsection of the bone. I put this patient upon cod-liver oil and iron, together with the most nutritious diet, and made use of my splint, ordering him to be kept as much in the open air as possible. Under this treatment the abscesses readily healed, and he has continued gradually to improve, until, as you see to-day, he walks with ease in the instrument, feels quite free from all pain, and presents a tolerably healthy appearance, considering his strumous disposition. This patient is doing very well indeed, but it will be some time before he can abandon the splint, as you perceive when I take off the extension, and make pressure upon the heel so as to bring the head of the femur into the acetabulum, he experiences much pain; but as soon as the extension is re-applied, you see that he can support the weight of his whole body upon the affected limb without any suffering whatever. I find, however, that there is not sufficient abduction of the limb, owing to the contracted state of the pectineus and gracilis muscles. I will therefore divide the tendons of these muscles, which will at once relieve this condition. (Dr. S. then made a section of the tendons, after which the motion was quite free.)

I take unusual pleasure, gentlemen, in showing you my second patient—this smiling little rosy-cheeked girl, who was brought quite unexpectedly to my office to-day, from her home in the country. I wish I had a daguerreotype of her when I first saw her last August, that I might show you the remarkable contrast between her present healthy, happy, cheerful condition, and her previous spanæmic, exhausted, woe-begone appearance.

This little patient is seven years old. Her mother states that about a year and a half ago she was first observed to complain of pain in the knee, the pain not being referable to any known cause; that this pain appeared for a number of months to vacillate, now apparently better, and then again worse; until it became finally so acute as to oblige her to remain in bed. When I saw her about the middle of last August, she had hectic fever, nocturnal sweats, no appetite, and was extremely emaciated. The thigh was strongly adducted, flexed upon the pelvis, and immovably fixed in this position. Opening at different points on the hip and thigh, were a number of sinuses discharging pus freely, and connecting with the joint. Upon a careful examination, I found the articulation extensively disorganized, and came at once to the conclusion that the course of treatment to be pursued in her case, and that which held out the greatest prospect of success, was exsection of the joint; which operation I performed early in September last. I found the condition of the joint such as to fully confirm my diagnosis.

I exsected the femur through the trochanter major, and removed such portions of the acetabulum as were found carious. The little patient was then put into the "wire breeches" previously referred to, and the wound dressed in such a manner as to favor granulation from the bottom. Her nights, previous to this operation, had been passed in sleeplessness and pain, but the first night after the operation, as well as the succeeding nights, she slept well without any anodyne. She remained under my care some seven weeks after the operation, during which time her improvement was marked and constant. At the expiration of this time her general health being much improved, I sent her home in the wire breeches. I have not seen her since that time until to-day. You observe that the two limbs are nearly or quite of the same length, while the motion

of the mutilated joint is almost as perfect as that of the other. No one can determine from the appearance of the two limbs which is the imperfect one. The matter that has been thrown out with the design of subserving ultimately the purposes of the normal bone, is yet pliant, and the joint therefore requires mechanical support, until this matter shall have assumed its firm fibrous or semi-osseous nature. And as no mechanical contrivance has yet been devised which effects this object so perfectly as my own splint, we will employ that. (Dr. Sayre then put up the limb with the adhesive straps and roller, and applied the splint, after which the little patient walked about, and appeared very much pleased.)



This cut represents the case three months after the exsection of the head of the femur, and is engraved from a photograph taken by Gurney.

But we must not forget the cause that gave occasion for the remarks which I have just made, namely: the patient upon whom I am now about to operate. The patient is a young man, 23 years of age. When a boy he had what he calls "the white disease of the knee," with which he was laid up for a year or two, but eventually recovered the perfect use of the joint. Some years after this period, he had hip disease, which appeared after a time to subside spontaneously; but it again reappeared in a low chronic form, and finally produced the condition of things which we here observe. The disease exhausted itself, and became arrested in the second stage, a very fortunate affair for the patient. The disease at present can hardly be said to exist, although there is at times an undue amount of tenderness experienced in the joint, especially after inordinate exercise. The operation I am now about to perform is not therefore to relieve the disease, which, as I have said, has already subsided; but rather to remove the undesirable result of the disease. You perceive that this patient's hip-joint appears to be firmly ankylosed, at an angle of about 45°. The muscles of the part are rigidly contracted, and whether this is a true

bony ankylosis, or merely a fixed condition of the joint resulting from the contracted state of these muscles, I have not yet determined. I shall now, however, investigate the matter. I shall first divide the tendons of the contracted muscles, and then attempt to restore the limb to its normal position. If I am opposed in so doing by bony adhesions, I shall break up those adhesions and reduce the limb.

(The patient being chloroformed, Dr. Sayre then divided subcutaneously from two points of puncture, the tendons of the tensor vaginæ femoris, the rectus femoris, the sartorius, the gracilis and the pectineus muscles. After which the motion of the joint was found to be tolerably good; although it had been in this locked condition for two years, no bony adhesion existed. The limb was brought down at once almost as straight as the one of the opposite side. The patient was then taken to his ward, the limb dressed in the manner previously described, and the extending weight at the foot of the bed employed.)

Original Communications.

REMARKS ON DENTISTRY IN THE ARMY.

By WM. B. ROBERTS, M.D.

OF NEW YORK.

THE sad misfortunes of the Crimean war, owing to imperfect attention to the sanitary condition of the British army, opened the eyes of the whole civilized world to the importance of a proper sense of duty in this connexion. It is not surprising, therefore, that humane and far-seeing men in this country should have taken an early opportunity in the present campaign, to press upon the government the almost incalculable importance of great care in the superintendence of the sanitary department of the army. Thus every effort is being made to attach to each regiment all the requisite force with all the necessary equipments to perform the work given to them in an efficient and satisfactory manner. There is probably very little to be said in the way of advice to such gentlemen as are thoroughly imbued with the importance of the subject, and as thoroughly acquainted with all the means and appliances necessary to it; but there is one point which has apparently escaped the attention of persons in authority, on which we wish to say a few words. During the last twenty years, and owing principally to the efforts of our own countrymen, DENTISTRY has become elevated from a mere branch to a distinct science. Colleges have been founded, societies formed, conventions held, professorships endowed, and all to give the greatest insight possible into the structure, physiology, and pathology of the human teeth. It has been found, as men progressed in the study of these organs, that their disease spread its ramifications through the whole animal economy; all the functions of the body have been affected and indeed suspended by the existence of a foreign and improper condition in the teeth; the whole sanitary condition has been altered, and the most serious complications of disease have attended the existence of diseased teeth.

Thus dentistry has been taken out of the hands of the surgeons and doctors, and has formed a separate profession of enlightened, educated, and scientific men, understanding as a necessity not only their own immediate calling, but also no small share of surgery and pathological anatomy. A few years since, the question was raised in England as to the propriety of attaching dentists to the British army and navy; a great deal had been said upon the subject, and it was well known that the teeth of the soldiers and sailors were in a deplorable condition; but after a temporary prospect of success the subject was dropped. Meanwhile, in the French army, with that sense of decency that always characterizes the French nation, means had been taken to extend a proper attention to the wants of the

body, and to the teeth; the men were supplied with brushes, and compelled to keep their teeth cleaned; and thus the matter stands in Europe at the present time. We have referred to this subject at the present time because it seems to us that it is proper that here, where dentistry has progressed more than in any other country, it is right that the first steps should be taken to still further advance it. And we desire especially to show the value that it might possess as a sanitary instrument, if proper efforts were made to invest it with the importance it deserves. It is almost needless to refer to the necessity for having good teeth in our army and navy; first, for mastication; and, second, but most important, for their effect upon the general health; and upon this last subject we desire to give some information.

Careful mastication is essential to perfect digestion, and this latter, more especially in the active life of the soldier or sailor, is a primal necessity for healthy existence.

Very few persons are aware of the derangements which may be produced by diseased teeth, although the period of dentition in children is generally considered as one of the most critical in life. It is, indeed, estimated by some writers, that one tenth of all the deaths in the world occurs during the period of the first dentition. The animal frame is in infancy so delicate, that the least local irritation produces a sudden and universal sympathy throughout the whole body. Fever is a very frequent accompaniment of teething; also an affection of the skin, resembling measles; pustules sometimes appear, not unlike a mild form of small-pox; diseases of the scalp; diarrhoea; convulsions; diseases of the lungs; and in fact, symptoms of nearly every form of disease may be met with during the period, and resulting from dentition. If we know that this terrible catalogue of evils is attendant upon the growth of the teeth during infancy, is it not rational to suppose that a healthy condition of these organs is essential to adults, when we consider the close connexion existing between the teeth, alveolar process, the parotid, submaxillary, and sublingual gland, on the one hand, and the mucous membrane of the mouth, which is continuous with that which lines the pharynx, œsophagus, stomach, and intestines, on the other? It is well known to the dental practitioner, the physician and surgeon, that if a tooth becomes diseased, all these organs will to a certain extent sympathize with it, independent of the agonizing and excruciating pain caused by the exposure of the nerve. Cases have been given where inflammation of the mucous membrane has extended so far as to produce consumption; while dyspepsia with all its attendant horrors may be, and often is caused by improper and insufficient mastication, which must necessarily result from the possession of poor and imperfect teeth. Neuralgia and *tic-douloureux*, probably the most fearful pains which the human race ever suffers, often proceed in the first instance from exposed nerves; and other acute and chronic inflammatory diseases frequently spring from carious teeth and diseased gums, ruining health, and disabling their victims from performing even the most simple duties of life; and in the case of the soldier who is exposed night and day to every variety of inclement weather, and every quality of fare, the chances of such diseases establishing themselves through the means of diseased teeth are greatly multiplied.

It is well known to the dental profession that all the diseases common to teeth can not only be cured, but may be prevented by proper and timely treatment. After having thus enumerated the evils appertaining to a defective condition of the teeth, a condition which experience has found to exist among the army to an extraordinary extent, and having shown the importance of such diseased condition being avoided and changed to aid in establishing a proper sanitary condition among these men who risk their lives for their country's service, and have neither time, means, nor opportunity for themselves discharging their duty in this respect; we desire to urge upon the proper authorities, that a corps of dentists, or dental staff, should be attached

to the United States army, similarly organized with the surgical department, who would act in connexion with, and as an efficient aid to, that department, besides performing their own duties in a proper manner. Holding this to be a great sanitary measure, as well as an economical and humane movement in behalf of those affected by it, we would especially offer these suggestions to our "Sanitary Commission," believing that in the scope of their noble field of labor there could not be performed a more important act, than the procuring of the passage of a bill through Congress at the approaching session, which should incorporate into the army an efficient DENTAL staff, strengthened with all the powers necessary to enable it to become most serviceable to the cause of health.

Reports of Hospitals.

BELLEVUE HOSPITAL.

ANEURISM OF THE ABDOMINAL AORTA.—ABSCESS OF THE LIVER.

[Reported by HENRY S. PLYMPTON, M.D., Assistant Surgeon, Bellevue Hospital.]

Aneurism of Abdominal Aorta.—Rupture.—Suspected Renal Calculus.—Peritonitis.—Death.—Post-mortem Examination.—Henry M., native of Ireland. In the spring of 1860, he felt severe pain in the upper lumbar region. In a week the pain was less severe, but extended to left side. After a month's sickness he was at work again. He had occasional attacks of pain in his loins during the rest of the year, and found that his legs were growing weaker day by day. On the third of April, 1861, he was attacked by very severe pain in his back and left side. He could neither lie on left side nor walk, and was faint and weak. In three or four days tried to work, but was too feeble.

April 17th.—Enters Bellevue Hospital in a state of prostration from obscure disease in lumbar region. His general appearance is good. Pulse, 100. Respiration hurried. Bowels constipated. Ordered laxatives and opiate.

April 18th.—The pain is not less severe, and now runs down the course of the ureter, and round the left side towards the umbilicus. There is also severe pain in the left testicle, with retraction of that organ. The symptoms now seem to indicate strongly the presence of calculus in the ureter. The urine was examined, but contained no albumen or other foreign substance. He now passes less urine than formerly. Ordered cups to the back and opiates.

April 20th.—The patient has had a chill. Otherwise, he is about the same.

May 1st.—His pains are decreasing. His bowels are costive. Ordered an injection. The treatment otherwise the same.

May 20th.—The patient is beginning to become emaciated, sleeps little, and the pain in his testis is more severe.

May 26th.—The patient lies on his back with his knees drawn up. His abdomen is quite full, somewhat tympanitic, and very painful. He has had no passage from his bowels for several days. He has had a chill. Pulse, 105. Ordered an injection, but there was no escape of feces. Opium continued.

May 28th.—Patient is very thin, white, and covered with a cold sweat. His pulse is feeble, 110. His abdomen is very much swelled and tympanitic. He vomits constantly. His left testicle is firmly drawn up. There is slight dullness on percussion in the course of the descending colon. Impacted feces are suspected to be present. Many injections given, but small amount of fecal matter removed.

May 29th.—Vomiting continues. Ordered pills of croton oil and colocynth, but they were followed by no dejection. Opiates as before.

June 5th.—The patient is very weak. Pulse, 110. His abdomen is less tender, but he has had no dejection yet. He vomits less often. He takes beef tea and wine.

June 8th.—His pulse is stronger, 98. That part of the scrotum which covers the left testicle is blue. Ordered a charcoal poultice. Peritonitis is less, and his skin is becoming yellow. Region of dullness in abdomen has extended in two days to twice its former width. Now it reaches nearly to the umbilicus. He has had no dejection, nor any vomiting. His tongue is dry and his pulse weak.

June 12th.—A consultation was held and the tumor decided to be aneurismal. Pulsation was felt extending to all parts of the tumor, but no bruit was heard. His pulse is 100 and wiry, and his skin is very yellow. The patient is very much emaciated.

June 13th.—The patient died quietly this morning at half-past five.

June 14th.—Autopsy at half-past four. The abdomen only was laid open. The flaps on the right side were easily laid back, but those on the left could be raised only about three inches, being held down by a tumor which was adherent to them. There were everywhere marked evidences of previously existing peritonitis in the shape of strong fibrous bands binding the loops of intestine together. There was but little fluid in the abdominal cavity. The tumor filled nearly one-half of the abdomen, and extended from the diaphragm to Poupart's ligament, dipping also down into the pelvis. The tumor had adapted its shape exactly to that half of the abdomen, pushing the intestines and stomach over to the right side. It was of a dark-blue color, and was firmly adherent to the abdominal walls wherever it came in contact with them. The descending colon and a part of the ilium formed a part of the right wall of the tumor, as also did the pancreas above. The tumor posteriorly covered the whole of the vertebral column from two inches above the renal artery to the sacrum. It was then carefully dissected out, together with the aorta and kidney of left side. On examination of the exterior of the tumor the kidney was not seen. The aorta at the origin of the renal arteries was the seat of an aneurism which would hold about six ounces of fluid. The sac presented on its inner surface large atheromatous patches, but contained no clots. Opening out of this was a larger aneurism containing in it the kidney. The walls of this sac were composed of condensed areolar tissue, but the kidney formed no part of them. The ureter was strangulated where it passed through the walls of the aneurism. Thus the urine was prevented from flowing from the kidney, giving rise to a dilatation of its pelvis, and probably to the pains which simulated those caused by the passage of a renal calculus. On examination of the kidney it was found to be fatty, and to contain urine in its pelvis. Connected with this aneurism was still another, the walls of which were the abdominal walls on the left and in front; the abdominal viscera on the right, the pelvic fascia below, and the diaphragm above. This immense sac was filled with hard clots, many of which were entirely distinct from the rest of the mass, as if the blood had been poured out at different periods.

A Case of Abscess of the Liver.—C. H., born in Ireland. Has been a free drinker. Some time ago had an illness, accompanied by pain in the right side and fever. Since then has been more or less unwell. Abdomen has been growing large for some time.

April 21th.—His suffering is not very great. His abdomen is large and tender on right side over liver. Liver very much enlarged, and there is dullness also over inferior posterior portion of right lung. The patient has pain in loins and hepatic region. He had a diarrhoea. Ordered subnitrate of bismuth to check the diarrhoea, but it did little good. He has a cough, for which an expectorant has been given.

May 25th.—He has continued much the same since he entered, except his abdomen has gradually become distended to its utmost capacity, and the rest of his body is much emaciated. Died at three p.m.

Autopsy.—The right lung was compressed by the liver in its lower half. On opening the abdomen the liver was

found to fill its upper half. The right lobe was entirely converted into a sac containing pus. After the pus was removed the liver weighed seven pounds. The walls of the abscess were about five lines thick, and it contained three quarts of pus. The rest of the liver was fatty and friable. The kidneys were small, lobulated, and fatty, with their capsules adherent. There were no other morbid appearances found.

American Medical Times.

SATURDAY, JUNE 29, 1861.

RETROSPECTIVE AND PROSPECTIVE.

WITH the present number we close the first year of the publication of the *AMERICAN MEDICAL TIMES*, and the occasion is suited to a retrospective and prospective view of our labors.

In undertaking the management of a weekly medical periodical, we were not unmindful of the fact that we assumed a great responsibility, and entered upon a field of labor difficult to cultivate, and requiring the most exacting and incessant toil. But we were led to believe, after considerable experience in medical journalism, and no little reflection, that the time had arrived when a medical journal was required to be issued from this metropolis, widely differing from any of its predecessors or contemporaries, both in the frequency of its publication, and the general scope of its design.

We need not, we are persuaded, present a single argument in favor of a weekly issue of a medical periodical to any reader who has regularly received this Journal during the past year. The ever-recurring day of the week that has placed it upon his table has brought him information of recent improvements in the science and art which are his daily study and practice. He has thus been stimulated to renewed efforts in his toilsome but humane calling by the words of encouragement, and the lessons of experience, which have just fallen from the lips of the pioneers in his profession, or his fellow laborers; and has by this agency renewed his fellowship with his medical brethren over the world at large.

The fears of many that a weekly must necessarily be trivial in its tone, that its lectures, original papers, reviews, society, and hospital reports, etc., must necessarily be very imperfectly prepared, are, we trust, in some degree dispelled. While it is true that certain portions of each number are prepared in haste, it is equally true that the material part of the work has undergone as thorough revision, during the past year, as it would, had it been designed for a monthly, bi-monthly, or quarterly. Of the value of the scientific papers which have appeared in the original department of the Journal, our readers can best judge; to the profession at large, the names of the authors are a sufficient guaranty of their excellence. If other proof of their permanent value were required, we should refer to the fact, that many of these papers have in part, or as a whole, already passed into the more enduring form of books.

In that portion of the work for which we are immediately responsible, we have endeavored to do a service to the profession, long demanded. This duty was, the discussion in

a full, frank, and unprejudiced manner, of those questions which relate to its educational, moral, social, and professional obligations. Our aim has been to elevate the tone of medical sentiment, and impress medical men with higher views of the calling of the physician, as a minister of health to both body and mind. We have striven by kindly and judicious criticism to prepossess the professional mind on all the questions to which passing events have given rise, in favor of that generous devotion to the highest interests of the medical body, which would remove petty jealousies, and tend to harmony of purpose and action. In other instances we have endeavored to lead the profession to the consideration of important subjects not likely to be suggested by current events. The opinions which have been expressed upon these topics have been formed only after the most mature reflection, and they are such as will, we believe, eventually receive the sanction of the profession.

The unhappy war which now distracts our country has imposed upon us new and unexpected duties, which we have endeavored conscientiously to discharge. Our province has been to encourage and strengthen the patriotic spirit of the medical profession; to direct, as far as has been in our power, its efforts in proper channels; to furnish needed information, and suggest from past experience, and the deductions of science, such reforms and improvements in the medical department of our volunteer army, as would make it most efficient in preserving the health and saving the lives of the citizen soldiers. This service was due alike to our Government and to our profession.

Arduous and unremitting as have been our labors, and irksome as have been many of our duties, during the past year, they leave no sense of weariness, no cause of repining, or source of regret. We have offended, but not in malice; and have wounded, but not in anger. Whatever may be the judgment of the profession upon the spirit, temper, and success with which we have performed our responsible and often delicate duties, we are conscious of having labored, with singleness of purpose, for its advancement in knowledge, and in the proper appreciation of its high and humane mission.

In the future management of this Journal, we see no occasion to deviate from the rules that have governed us in the past. We shall endeavor to fill its original department with the productions of the ablest and most experienced writers in the profession. The reports from hospitals, and of the proceedings of societies, will be full, and replete with practical matter. A digest of the current medical literature will be carefully prepared, and reviews of recent medical works will appear promptly after their issue. While the war continues, we shall appropriate a considerable space to whatever will interest the medical reader. A large and new field is here opened for our study, and we shall not let it pass unimproved. Our facilities for obtaining accurate information of the sanitary condition of the troops at the various localities, of the history and peculiarities of the prevalent diseases, and of the operations of the Sanitary Commission, will enable us to present a very complete weekly review of the medical affairs of the army.

The encouragement which we have received during the past year has met our most sanguine anticipations; and we enter upon a new volume with the hope of rendering the *MEDICAL TIMES* still more attractive and useful to the practitioner, and of thus insuring the continuance not only of the cordial, but of the *material* support of all branches of the medical profession.

THE WEEK.

Among the bequests of the late N. I. Bowditch, Esq., of Boston, is the following:

"Item—I give to the Mass. General Hospital \$5,000, as a fund to be called the Wooden Leg Fund, the income to be applied towards defraying the expenses of wooden legs for patients who have been obliged to submit to amputation. In the distribution of this income, I should desire that female patients should be preferred to males, and young patients to old ones."

This bequest realizes the wish of a benevolent gentleman of this city, as expressed several years ago. We shall hereafter call attention to it.

The following general order has been issued from Adjutant General THOMAS's office, Washington:

"The several medical directors of the army will, when they have reason to doubt the professional competency of any of the medical officers under their charge, organize a board of not less than three medical officers, which shall examine said officers of questioned professional capacity, and decide whether they are competent to the performance of their duties. If the decision of the board is adverse, they will cease to be in the military service of the United States."

The English Secretary of War, in moving the thanks of Parliament to the Army for their conduct in China, made the following statement: "*The troops during the whole of that arduous campaign had enjoyed as good a state of health as if they had been at home.*" This remarkable exemption is attributed to the increased power given to the Medical Department by the elevation of its members to a proper rank. They were then able to enforce sanitary regulations, and the results were most happy. In regard to rank as a source of power, the Commission appointed to inquire into the sanitary condition of the English army hold the following language: "Rank in the military service is everything; there exists no authority without it; and a civil department, which by its connexion with the army has acquired a semi-military character, cannot maintain its position while debarred from the rights and privileges appertaining to it." We notice with great pleasure the consideration which our Government attaches to the medical element of the army. The corps of surgeons is now to be still further increased by the appointment of a surgeon to each brigade, such appointment to be made only from the candidates who are endorsed by the Board of Examiners selected by the Surgeon-General. This officer being attached to the staff of the Brigadier-General, becomes his adviser in all matters pertaining to the health of the troops, and by having the co-operation of the regimental surgical staff, and the power of systematizing their duties and labors, a still higher efficiency in the protection of the soldier's health, and promotion of his comfort, is secured, than has ever been known in our army.

At Cairo the amount of sickness is considerable, as appears from the following extract from the *Cairo Camp Register*:

"The following statement exhibits the number of soldiers who have entered the army hospital at this post since the 27th of April, and the diseases for which they were treated: Diarrhoea 103; Bilious Fever 27; Rheumatism 7; Pneumonia 9; Fever and Ague 19; Dysentery 115; Gunshot Wounds 3; Pleuro-pneumonia 11; Intermittent Fever 17; Miscellaneous 461.—Total number treated 772."

The thermometer has stood at 94° in the shade, at one

o'clock. Considering the locality and other circumstances, we fear there will be a large mortality at this point, unless the most rigid system of sanitary surveillance be enforced. Dysentery and typhoid fever are already prevalent;—two most formidable diseases of the camp.

Medical News.

At the seventh anniversary of the British Anti-Tobacco Society held in Exeter Hall, London, on the 10th of May, the following resolutions were adopted:—1. "That the more the influence of tobacco is investigated, the more conclusive is the evidence that it is highly detrimental to the physical, intellectual, and moral condition of those who are subjected to it; and so manifestly are its injurious consequences on the increase as seriously to threaten the deterioration of coming generations." 2. "That the evils proceeding from tobacco being such as are recognised in the resolution which has been passed, this meeting would urge, with all the earnestness of religious and patriotic sincerity, that the means which have hitherto been employed with such encouraging success may be sustained, by increased liberality and abundant personal co-operation, by the British public, whose interests are so deeply concerned in this movement."

MEDICINAL TREATMENT OF GOUT.—The combination which M. Trousseau conceives to be the most efficient is that of sulphate of quinine, colchicum, and digitalis, proposed by M. Becquerel in the following proportions:—Quinæ sulphatis 22 grains, ext. semin. colchici 8 grains, ext. digitalis 4 grains. M. Divide in pilulas decem. Two or three of these pills should be exhibited in the course of the twenty-four hours for two, three, or four successive days. M. Trousseau has prescribed these pills himself, and witnessed their exhibition by others, with sometimes wonderful success. He has found the excruciating pain of a genuine acute paroxysm yield in seven or eight hours, and the attack itself subside in two or three days. These are the pills the professor prescribes in the incipient stage of anomalous gout.

CHINESE MEDICINE.—Anatomy, says Mr. Lockhart, is totally interdicted both by law and public opinion in China. Any man, however, may practise medicine, and thousands do so, with the slender knowledge which books afford, or by the exercise of their own common sense, which proves a safer guide, and brings persons occasionally into notoriety, and also a good income. In these books, which are based upon principles adopted two or three thousand years ago, the important doctrine of the circulation of the blood is not only not understood, but preposterously confused and erroneous. Their theory of the pulse proves this to a demonstration. There is no distinction between arteries and veins—no knowledge of the heart's proper function, nor of the necessary changes the blood undergoes in the lungs and capillary system. The Chinese know nothing of the nervous system, its functions and diseases. They have names for the brain and spinal marrow, but nothing more. They have a pulse for every organ but the brain. The true position, forms, and uses of the viscera are not understood. They profess to be so, but a glance at their drawings discovers the most glaring errors. There is no lack of books and observations on the functions of the body; for everything, even the most inscrutable and mysterious, is explained by the Yin and the Yang, the hot and the cold, the dry and the moist, the superior and the inferior influences! Almost every symptom is a disease, and every prescription (of which the books contain thousands) is for every imaginable symptom, indicating a miserably small amount of acquaintance with the nature and the causes of disease.—*British Medical Journal*.

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